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FISCAL YEAR 1988 BUDGET REVIEW

HEARINGS

BEFORE THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

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FISCAL YEAR 1988 BUDGET REVIEW

THURSDAY, FEBRUARY 5, 1987

U.S. Senate,
Committee on Environment and Public Works,
Washington, DC.

The committee met, pursuant to notice, at 10:06 a.m., in room 406, Dirksen Senate Office Building, Hon. Quentin N. Burdick (chairman of the committee) presiding.

Present: Senators Burdick, Mitchell, Lautenberg, Mikulski, Reid, Graham, Stafford, Chafee, Durenberger, and Warner.

Environmental Protection Agency

Senator Mitchell [acting chair]. Senator Burdick is detained briefly and has asked that the hearing commence. He will be here shortly. So as to accommodate the other Members and our witnesses, we'll begin. I have a brief opening statement, and then we'll call upon Senator Stafford and any other Members who appear.

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator Mitchell. Mr. Thomas, I welcome you and the other officials who will be with you, and we look forward with genuine interest to your testimony. As you know, you have made a very strong and favorable impression upon the members of this committee in past years and we rely upon you for a good deal of guidance in our efforts, and so we are anxious to hear you.

The EPA budget, which you are about to describe, is far from the biggest in the Federal Government, but it is one of the most important. The American people place the highest priority on clean air and clean water and a safe environment. They expect us to pass the laws necessary to protect the environment; they expect us to provide sufficient funds to assure that the laws are implemented fully and effectively.

The good news about this budget is that it will hold most of our environmental programs together for another year. It was not long ago that there was a real question whether some programs could function under the budgets proposed by the Administration. The bad news is that there is at least some reason to doubt that this budget will bring about the full and effective implementation of programs which the public expects.

I have several concerns about this budget proposal and I look forward to hearing from you, Mr. Thomas, on these and other areas.

First, while it is alleged that there is growth in the EPA budget, the agency's operating budget would actually decline slightly. Not only is there an overall decline, but most programs take significant cuts in order to fund a major $25 million increase in costs for rent and related services.

More importantly, what is the purchasing power of these funds? Does the agency have greater purchasing power now than in 1981? The answer is, unfortunately, no. The 1988 operating budget in constant 1981 dollars is $1.1 billion; this is a cut of $240 million from the actual operating budget in 1981 of just over $1.3 billion.

I am going to place in the record an analysis of EPA budget trends prepared by the public interest group, Environmental Safety, which describes some of the effects that I am referring to here. (See p. 55.)

My second concern is that, while the purchasing power of the agency budget has decreased, the agency's workload has increased dramatically. Since 1981 this committee has developed major new statutes addressing drinking water, hazardous waste, and Superfund sites. These new laws carry with them significant workload increases. We have for years stretched the environmental dollar, first to cover inflation, and then to cover new initiatives. How has the agency coped with these budget realities?

To a limited degree, costs have been cut and specific projects completed. More commonly, new initiatives are paid for with funds from traditional air and water programs, and activities not directly related to statutory mandates—such as research and development—are cut back. Often, even these sacrifices do not generate sufficient funds to fully carry forward with new programs.

My final concern is with several specific provisions of the budget. I'm concerned about the lack of funding for the Clean Water Act amendments, the shift of radon research funding to the Department of Energy—which appears to be completely and totally unauthorized by the law—and the approach to implementation of the Special Envoy's Report on Acid Rain. I will address these and other issues in questions following the Administrator's remarks.

Mr. Thomas, I recognize that you are under strict constraints with regard to budget proposals, as we all are. I am concerned that we do not stretch the environmental dollar too thin, that this budget may not provide the first-rate environmental programs that the American people expect and deserve.

And now, I would like to call on the former chairman of this committee, the man most responsible—along with Senator Chafee—for much of the major environmental legislation enacted in recent years, Senator Stafford.

OPENING STATEMENT OF HON. ROBERT T. STAFFORD, U.S. SENATOR FROM THE STATE OF VERMONT

Senator STAFFORD. Thank you very much, Mr. Chairman.

It's not possible to begin this hearing this morning without noting the action that the Senate took yesterday to override the President's veto of the Clean Water amendments. I know that many members of this committee—but most especially, Senators Chafee and Mitchell—made tremendous efforts to assure that the

Nation's commitment to clean water will be continued. Indeed, as I look around this room I can think of a contribution that each of our returning members of this committee made to that bill, and I want to personally express my deeply-felt appreciation to each of them for their work. A special thank you also goes to our new chairman, Senator Burdick, whose decision to stand pat with the legislative language that we brought out of conference last year assured swift action on the Water Quality Act in this Congress.

Extending the Clean Water Act was not our only achievement in the last Congress; we did much more. Without even considering the highway bill or the water resources legislation, looking just at new legislation in the environmental field, our efforts, I believe, met with extraordinary success. We passed amendments to the Safe Drinking Water Act and Superfund and created the new Asbestos Hazard Emergency Response Act. We also began to see the benefits of the solid waste amendments which were put into law at the end of the 98th Congress.

Mr. Chairman, as much joy as it gives to reflect on our recent legislative victories, we have important work to do here this morning. We must ask whether the budget of the Environmental Protection Agency for 1988 is in the same spirit as the laws just enacted. Can this budget do the job? Well, consider some of the specifics.

This budget asks for a smaller Superfund appropriation than was made last year. As a matter of policy, this budget says that we will not fulfill the five-year, $8.5 billion commitment that we made to Superfund just a few short months ago—which was, incidentally, signed by the President.

There will be no general revenue funding for Superfund, according to this budget; and without it, we cannot meet our target.

This budget contains no new funds for the Asbestos in Schools programs and rescinds the $50 million appropriation that was made last year. I suppose I shouldn't be surprised at that since the Administration's educational budget calls for a rescission of some $2.5 billion in educational funding for the next fiscal year, along with drastic reductions in proposals for the future. But this budget attempts to rescind an appropriation already made for Asbestos in Schools.

Last year, the Congress increased the gasoline tax by $100 million per year to pay for a new program to clean up leaking underground storage tanks. Many people say that the best solution to our budget problems is a "pay as you go" approach, and that's what we did in the case of underground tanks. We took the heat; we increased the tax. We put the revenue in a dedicated fund to pay for cleanup. Does EPA even ask to spend those funds in this budget? No. It plans to carry over funds from 1987 spending, a total of only $50 million in two years, when the Congress has made available $200 million in new revenue during that period for this purpose. I recognize, Mr. Chairman, as you noted, that the Administrator of EPA has to operate in the context of what the Office of Management and Budget and the White House want, I understand that.

I could go on comparing the new, larger commitments made by the Congress with this smaller budget proposed by the Administration—clean lakes, sole-source aquifers, community right to know, monitoring for unregulated drinking water contaminants, nonpoint source pollution, the construction grants program. Each member could name many other examples where the resources in this budget will not do the job to carry out the new efforts we have authorized.

The point I am trying to make is this. The Congress has been voting for a larger effort, a swifter response, a more thorough cleanup, a more convincing margin of safety, better protection for the health of our citizens and the quality of our environment. We have not been voting simply to take dollars out of one pocket at EPA and put them in another. Getting EPA a budget that can do the job is the next and most immediate challenge facing the members of this committee.

I know that all of us will continue our efforts to assure that the new commitments are fulfilled.

Thank you, Mr. Chairman.

Senator MITCHELL. Thank you, Senator Stafford.

We are pleased to be joined by Senator Lautenberg, chairman of the Environmental Oversight Subcommittee, and a valuable contributing member of the committee who is responsible for much of the Superfund law that was enacted last year.

Senator Lautenberg?

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thank you, Mr. Chairman.

Welcome, Lee. There have been some changes, but not in my interest or your determination to get the job done, and I'm concerned about whether or not we're providing the resources. Certainly, the budget that you've submitted raises serious questions; questions about Superfund, about construction grants, the agency's operating programs, including reductions for the radon program. In fact, when adjusted for inflation, EPA's operating budget is essentially frozen at 1976 levels; yet, since then we've enacted many tough new laws, including amendments to Clean Air, Clean Water, RCRA, the Safe Drinking Water Act.

What this means is no real increase in funding despite some very real additions to our environmental laws and environmental responsibilities. We just enacted a tough new Superfund law, with your help; we appropriated $1.41 billion for fiscal year 1987. We authorized $8.5 billion for the program over five years. The agency's response was not to budget for the $1.41 billion Congress gave it; instead, EPA plans to cut, essentially, over $300 million from the 1987 appropriation. It will carry this sum over into fiscal year 1988, and that's where, frankly, some of the magic comes in.

The 1988 budget for Superfund is about $1.6 billion, and that seems like a significant increase from 1987; in fact it's not, really. The budget actually calls only for $100 million of new Superfund spending in 1988. So what we're really talking about here bears striking resemblance to the Administration's old but resoundingly rejected funding proposal. We all remember this Administration trying to sell a $5.3 billion authorization, and we all remember Congress authorizing $8.5 billion for Superfund. EPA's first two years are closer to the Administration's original funding proposal than to the law's authorization—the same old funding proposal, despite tough new law; its cleanup standards, its schedules, its right to know program—the same old funding program despite the recent proposal to add 64 sites to the National Priorities List.

We're not here to redebate the Superfund authorization. The evidence for this level of funding was there, and the Congress acted accordingly. We are also not here to let the President undo, through the budget, what Congress legislated—and, I might add, what the President signed into law.

It is also true for the Clean Water Act. Yesterday, we overrode the President's veto; today, we will once again hear that the Administration is requesting $12 billion through 1993 for construction grants. That proposal failed to persuade the States and municipalities. It failed on the floor of the Senate. It failed to prevent the overwhelming override that we saw this week.

Mr. Chairman, this Congress has authorized $18 billion for construction grants and revolving loans, and it is time for the Administration to give us a budget that responds not to the proposal that Congress rejected, but to the law that we enacted.

The same is true for EPA's operating budget. This budget covers the rest of the agency's programs, ranging from air to radiation to hazardous waste, and these programs must address major environmental programs—asbestos in schools, radon, hazardous waste disposal—these programs must respond to tough new laws and deadlines, the RCRA amendments of 1984, the Safe Drinking Water amendments of 1986, the radon indoor air provisions of the new Superfund, which Senator Mitchell and I worked so hard to enact. Despite this, the operating budget would slip, frankly, through smoke and mirrors, the Administration is going to claim a 3 percent increase. But that assumes a rescission of $50 million from the 1987 appropriation. This rescission includes two items: $47.5 million for the Asbestos in Schools Program, a vital program to protect our children from this very serious health threat, and $500,000 for the renovation of buildings at EPA's Edison, New Jersey research lab. I sponsored this funding measure in the Appropriations Committee, and these funds will allow the EPA to embark on a bold joint research effort with many of New Jersey's universities. The goal of this research is to improve hazardous waste treatment technology. With 99 Superfund sites in my State, over 900 across the Nation, and significant RCRA problems, this is hardly the time to be cutting these R&D funds.

Included in the operating program cuts are reductions in the radon program. The Administration proposes an 11 work year and $1.3 million decrease from 1987 levels. Over the last two years Lee Thomas has said repeatedly that radon is a priority for EPA; Lee, I'm sure you remember those statements. Congress responded with a new radon program in the Superfund bill. It passed the new law. We put EPA in the lead on radon research and mitigation; we authorized $5 million a year for the program; we required EPA to report to Congress on January 17th with its implementation plan for the new law.

The Administration has responded very poorly. Not only has it not submitted the report, it has proposed funding reductions and it plans to shift significant responsibility away from EPA. This problem is still emerging on a national level. In New Jersey, 40 percent of the homes tested for radon show levels in excess of EPA guidelines. This isn't the time for EPA to be getting out of the business of radon protection. It is also not the time for EPA to be cutting RCRA; the water quality program, including oil spill funding; the air program, including air toxics; and the Toxic Substances Program.

Mr. Chairman, I have reviewed this budget with one question in mind. Does EPA have the resources to do the job? And frankly, the answer is no.

I am committed to working with you and the committee to improve this budget and to ensure that EPA can meet its responsibilities. The health of our citizens and the sanctity of our environment depends on this. Thank you very much.

Senator **Burdick** [assuming chair]. Senator Mikulski?

Senator **Mikulski**. Mr. Chairman, in the interests of time I have no opening statement.

Senator **Burdick**. Senator Reid?

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator **Reid**. Thank you, Mr. Chairman.

I appreciate the opportunity to hear the testimony of Mr. Lee Thomas concerning the proposed EPA budget for fiscal year 1988.

This committee has been in the forefront of the passage of many of our landmark environmental laws. The Environmental Protection Agency is charged with the responsibility of administering a plethora of these Federal programs, ranging from water quality to control of hazardous materials and pesticides, air pollution, and the cleanup of toxic waste dump sites.

Overall, the Environmental Protection Agency's budget essentially maintains the level of funding provided in fiscal year 1987 for the core pollution programs. Funding for the Superfund program, however, will expand considerably. I'm anxious to learn of EPA's plans to implement the Superfund law passed last year. I hope, that sufficient funds exist, and, Senator Lautenberg, I commend and applaud you for your statement because it seems like there's a lot more work to do with the same amount of money being spent. It will be really interesting to see how we're going to be able to accomplish that.

As I said, I hope, that sufficient funds exist for EPA to meet its responsibility with respect to these programs and other programs under its jurisdiction, but more specifically sewage treatment projects, safe drinking water, asbestos cleanup, and underground petroleum tanks.

Mr. Chairman, I thank you for holding this hearing and allowing us to question Mr. Thomas about these important EPA programs.

Senator **Burdick**. Senator Graham?

Senator **Graham**. Mr. Chairman, I have an opening statement which I will file for the record.

[Senator Graham's statement follows:]

OPENING STATEMENT OF HON. BOB GRAHAM, U.S. SENATOR FROM THE STATE OF FLORIDA

Mr. Chairman, I appreciate the opportunity to review the 1988 budget request of the Environmental Protection Agency. I welcome Mr. Thomas and his staff and thank them in advance for outlining the Agency's budget proposal for us today.

In looking over the EPA budget document, I was pleased to see the proposed increase for the new wellhead protection program under the Safe Drinking Water Act. This represents a step toward further protection of groundwater and gives the states some of the help they need in meeting the requirements of this new legislation.

Another proposed increase worth noting is the pesticide certification and training program. We in Florida depend on agriculture as one of our major industries. As everywhere else, we also depend on surface and groundwater as major sources of our drinking water. While pesticides are a reality of agricultural life, the need to apply them with the utmost care is imperative in maintaining the integrity of our water supply and other aspects of our environment.

I am pleased that the request of state grant programs are similar to the funding levels of last year. While more of the responsibility for environmental regulation is being shifted to the states, we must make sure that the financial burden is shared so that carrying out these responsibilities does not become an unattainable goal. Additionally, maintaining enforcement at existing levels, as is proposed, will help the states in their efforts to carry out these expanded responsibilities.

There are several areas in the budget request which deserve careful reevaluation. The proposed elimination of asbestos in schools loan and grants program—along with a $3.3 million cut in program administration and a $5 million reduction in contractor and inspection certification—flies in the face of the Congressional intent of the asbestos in schools legislation enacted last year. The fiscal year 1987 appropriation to carry out the asbestos program barely scratches the surface of what needs to be done to remove the asbestos hazards in our schools. Not only does the Administration propose to reduce this amount substantially in 1988, but it also requests a rescission of $47.5 million of the fiscal year 1987 loan and grants program. Florida alone could use the entire fiscal year 1987 appropriation for asbestos abatement in schools. Assuming each state has similar needs, how do we propose to carry out this new law—particularly in light of the proposed reductions and rescission?

This budget request also includes close to a 50 percent reduction in funding for radon mitigation research. While the Department of Energy intends to take on expanded radon research, I believe it is incumbent upon the agency charged with protection of the environment to maintain a constant level of research with this very perspective in mind, to include health effects and other short and long-term environmental consequences. In Florida, we experience high levels of radon associated with our phosphate mining. Worker exposure is a serious concern and research as to effects and mitigation has only begun.

While realizing the need to find the dollars for mandated salary increase, the proposal to reduce abatement, control and compliance, along with research and development to accomplish this, is irresponsible. I would suggest looking at alternative places in the Agency's budget to trim in order to fund salary increases.

I want to emphasize the importance of the Administration's intended reevaluation of the sewage construction grants request. The states clearly need the full $2.4 billion authorized in the Clean Water Act for fiscal year 1987, in order to continue sewage treatment construction that will put us on the path toward meeting capacity needs and toward compliance by July of 1988.

Again, Mr. Chairman, thank you for this opportunity. I look forward to hearing Mr. Thomas and his staff describe the 1988 request for the Environmental Protection Agency.

Senator BURDICK. I will also file my opening statement for the record so we can get to the business of the morning.

[Senator Burdick's statement follows:]

OPENING STATEMENT OF HON. QUENTIN N. BURDICK, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Good morning. The Committee is meeting today to review the budget proposal for the Environmental Protection Agency for the next fiscal year. This is the first hearing conducted by the Committee this year in preparation for reporting recommendations to the Budget Committee.

Compared to current appropriated levels, the fiscal year 1988 proposal calls for a reduction of 5 percent to the EPA budget. This reduction is proposed despite enactment of three major new initiatives within the past year. Requirements of the Safe Drinking Water Act Amendments of 1986, the Superfund Amendments and Reauthorization Act, and Clean Water Act amendments place substantial new responsibilities on the Agency. We are all mindful of the need to exercise restraint in spending. However, protection of human health and natural resources is a priority resoundingly supported by the public who pays for these programs. It is our responsibility to insure that the necessary resources are available to fully implement them.

In the context of EPA's broader mandate, the Agency is confronted with new research and regulatory challenges on several fronts. Problems such as global warning and stratospheric ozone protection are emerging as very real causes for concern. Biotechnology is becoming a viable industry requiring new methods for evaluating and regulating its various applications. The Agency continues to grapple with serious problems associated with air pollution, hazardous waste disposal, and control of pesticides and toxic substances.

EPA is the lead Agency in addressing these issues, yet the budget proposes 4 percent less for the regulatory program and 24 percent less for research than was actually spent in 1981. Proposed personnel levels for these programs are 10 percent the 1981 level. This is a matter of concern to me and it is shared by other Members of the Committee.

In addition to funding for fiscal year 1988, the President's budget proposes a number of damaging changes to the current year appropriation for the Agency. Funding rescissions, transfers, and carryovers are proposed that would significantly change the direction of several EPA programs.

As I noted earlier, several new environmental initiatives have been enacted in the past year. This is the first opportunity the Committee has had to review their implementation. We have a full agenda before us, therefore I suggest that we proceed.

I welcome Lee Thomas and his assistant administrators who are here to testify on the EPA budget proposal for the coming fiscal year.

Senator BURDICK It is a pleasure to welcome you back, Mr. Thomas; yours is a familiar face around here. You may proceed.

STATEMENT OF HON. LEE M. THOMAS, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY A. JAMES BARNES, DEPUTY ADMINISTRATOR

Mr. THOMAS. Thank you, Mr. Chairman. It's a pleasure to be back with the committee to go through with you this morning the budget proposal for the Environmental Protection Agency for fiscal year 1988.

Obviously, we all have our own opinion when we review this budget. I am here to present mine. It will differ to a certain extent from some of those that we have heard so far this morning, although I feel that we will probably find it is the same as some of those we have heard this morning. I am interested in working with this committee as I have in the past to try to respond to what you feel the priorities are, to try to communicate to you what we feel the priorities are within the responsibilities we are carrying out in the Environmental Protection Agency.

What I thought I would do is just briefly run through the budget highlights with you and then open it up for questions. I have with me at the table Jim Barnes, Deputy Administrator of the Agency; and behind me, all the Assistant Administrators in the various program offices, and we're going to be pleased to try to answer any specific questions you have today on the budget.

When we prepare the budget, we are constrained by a number of things. First, we are constrained by our base program requirements; obviously, we have major authorities that continue in the agency and major program requirements that continue. We look at the maturity of programs, and programs change over time; obviously, the clean water programs and the clean air programs will change over time, particularly the relationship between our authorities and State authorities, and what we are trying to do at a Federal level versus what States are trying to do at a State level.

Secondly, we look closely at our statutory mandates; and as has been indicated by a number of Senators, those have increased significantly during the last several years with new laws and reauthorization of existing laws. We look to ensure that we can meet those mandates, if they are "meetable."

The third thing we do is to try to assess overall priorities of the agency within the constraints I've mentioned, particularly from an environmental risk reduction point of view. We ask where should our highest priorities be as far as risk is concerned, and whether we are in fact trying to meet those priorities.

And finally, we're constrained by fiscal requirements. There's no question about it; you're as aware of it as I am, and that is, we operate within a broader context, which is the context of trying to balance, on the one hand, our environmental needs in this country; and on the other hand, the overall resources available to meet those needs, as well as others.

So as I look at all of those things, I try to balance them and present to Congress a budget that, first and foremost, will provide environmental protection for the citizens of our country.

As you look at our budget you will find that it includes some major components reflecting the priorities I indicated. First a major two-year ramp up of the Superfund program, trying to come back from a year and a half of a slowdown, and move the program back to the level that Congress anticipated and that we anticipated when Superfund was reauthorized. We looked at the two-year program of Superfund because that's basically where we were in the process. Senator, are you able to see the chart?

Senator LAUTENBERG. No, sir.

Mr. THOMAS. I think we've got copies.

Senator LAUTENBERG. Putting them in the sunlight like that kind of obscures things. I don't know if that's a mistake or intent.

Mr. THOMAS. It's a mistake.

First priority is two-year ramp up of the Superfund program.

Secondly, I'd like to respond to how our budget supports the EPA portion of the Special Envoy's Report on Acid Rain and its recommendations.

Third, the requirements of the drinking water program that was reauthorized by Congress last year are reflected in the budget.

Additionally, it maintains stable resources for our operating programs.

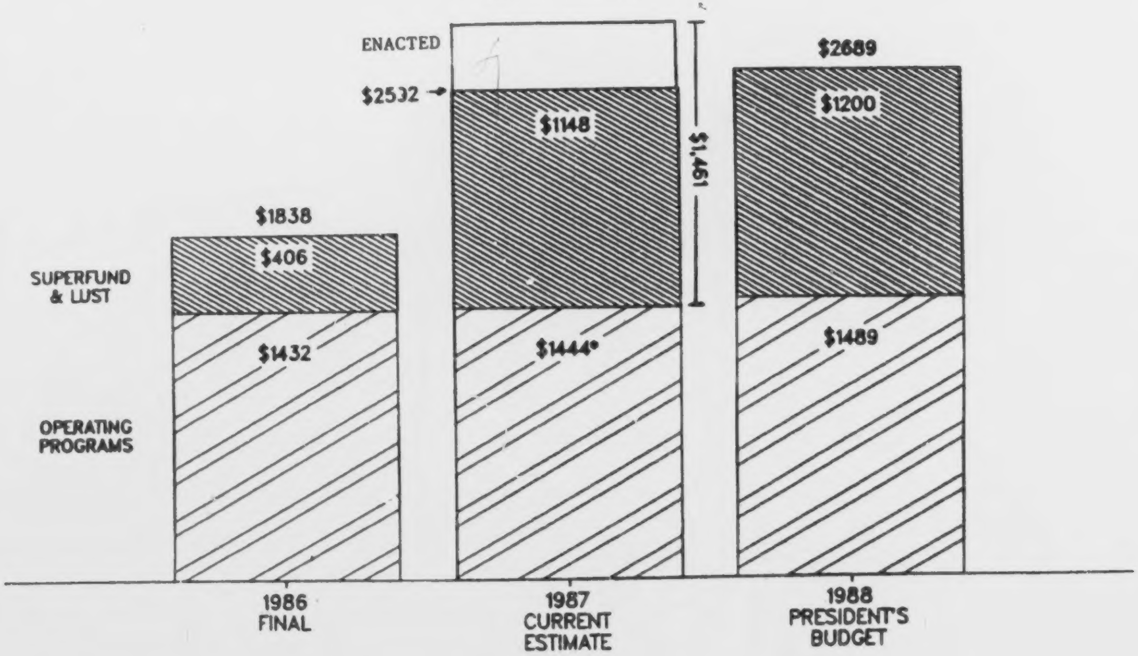
And finally, it continues strong support for the State programs; obviously, a major component of implementing the authorities that we have under our laws.

The overall budget of the agency, as you can see, does increase; that is largely reflective of the Superfund program. Obviously, the slowdown last year in Superfund reflected a small amount of money, $400 million—for Superfund, it's small—but the two-year budget that we're requesting for 1987 and 1988 reflects substantial increases in Superfund. As you indicated, Senator Lautenberg, there was an appropriation of about $1.4 billion for 1987; we looked at how we could move the program back up as quickly as possible in 1987 and 1988. We are proposing to roll over a portion of those funds from 1987 as we move the program back up to speed in 1988, and that's the reflection there, just as you indicated, of what we're trying to do. It's not an intent to try to hold down the funding; it's an intent to try to bring the program back up as quickly as possible. But we do have to account for the fact that we've got to hire well over a thousand people. We've got to go from a budget of about $400 million to about $1.2 billion. The ramp up of that program is substantial, and I'll speak to that in some more detail.

As you've also indicated, our operating budget is, in fact, about stable from last year to the coming year. It is a slight increase as you look across from 1986 to 1987 to 1988, and I'll speak to that in some more detail, as well.

THE AGENCY'S FY1988 BUDGET INCREASES BY NEARLY $100 MILLION FROM THE FY1987 CURRENT ESTIMATE

($ IN MILLIONS)



* Includes $50 million rescission

Mr. **Thomas**. The construction grant portion of our budget, which was not reflected in the past chart, obviously is one that's had considerable debate by Congress and the Administration over the last several months, which I think was settled as of yesterday. The budget proposal that you see there for the grant portion is the President's budget request which reflects the $2 billion request that's in our 1988 budget as opposed to the $2.4 billion authorization which was in the bill which the Senate acted on yesterday. As you can see, that is different from our original proposal, which I was talking to you about last year. We substantially increased that proposal, and that's incorporated in our budget request.

But I must say, as an overall statement, that we have got to go through the process over the next several weeks and months to assess what additional resources we may now need in fiscal year 1987 and fiscal year 1988, to implement the reauthorized Clean Water Act. That is not reflected in this budget proposal. We will do the same thing on this act that we did on the Safe Drinking Water Act and on RCRA; and that is, once it is reauthorized, we review it and determine whether additional resources are needed, whether they be in construction grants or other portions of that act. I have already indicated to OMB that we've got that process underway; it may well reflect a need for a supplemental request in this area later on in the year, but that review process is now underway.

Senator **Stafford**. Mr. Chairman, before that chart comes down—Mr. Thomas, are those calendar years or fiscal years that are on the bottom line in the chart?

Mr. **Thomas**. Fiscal years.

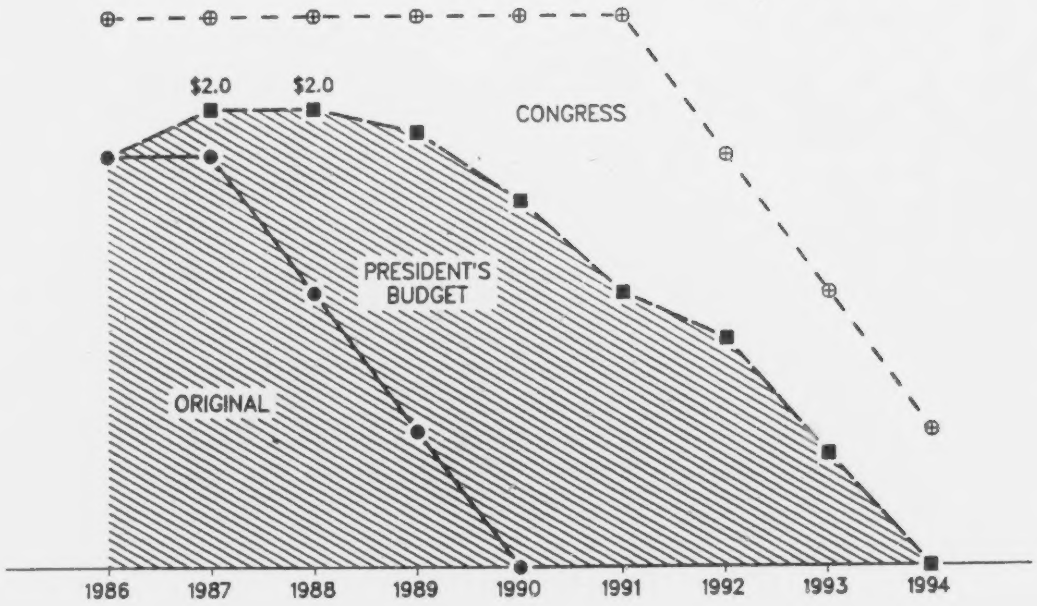
Senator **Stafford**. Fiscal years?

Mr. **Thomas**. Yes, sir.

Senator **Stafford**. Thank you.

CONGRESS HAS ENACTED A LARGER CONSTRUCTION GRANTS PROGRAM

($ IN BILLIONS)

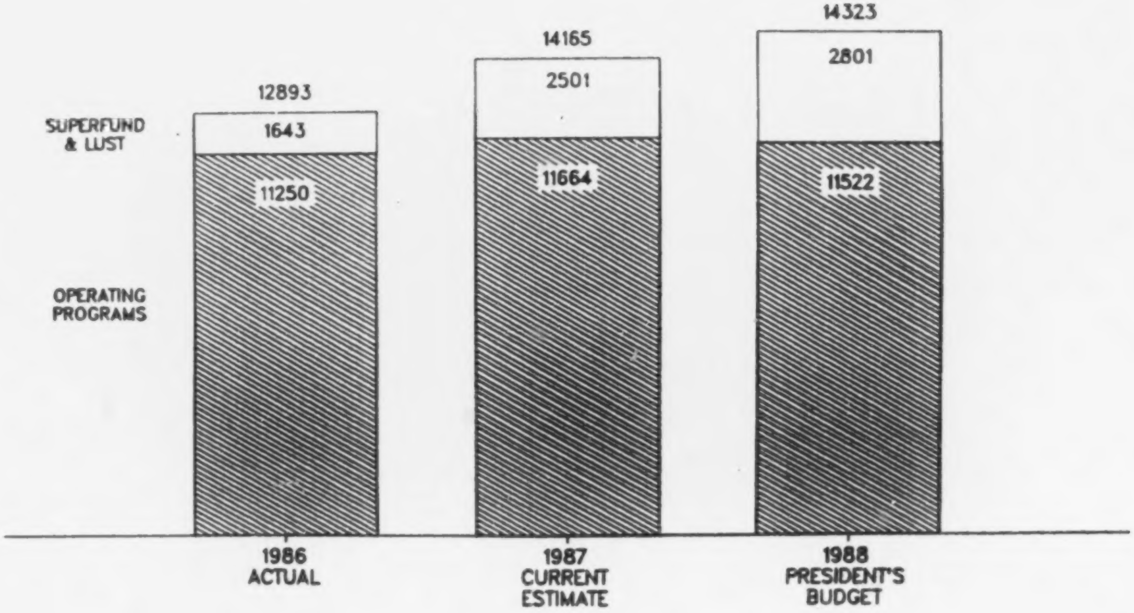


Mr. THOMAS. Agency work years also have reflected the same kind of changes as our budget. As you can see, the Superfund work years—and those incorporate the underground storage tank response program that was in the Superfund law—are increasing dramatically. We're nearly doubling the size of the Superfund work force over a period of two years. This year, in fiscal year 1987, as I indicated, we'll be hiring nearly a thousand additional people for Superfund.

Our overall operating budget for the agency, again, is maintaining at a fairly stable level with some increase over the actual level for 1986, but again at a fairly stable level; a little above what we requested last year, a little below what Congress authorized.

AGENCY WORKYEARS CONTINUE TO INCREASE

(WORKYEARS)



Mr. THOMAS. Specifically looking at Superfund, as I have indicated, the budget reflects our review of what was required to ramp the program back up to the kind of level that Congress and the Agency discussed in depth when we talked about the Superfund reauthorization. This reflects funding for Superfund and for the initial phase of the underground storage tank program.

Let me indicate to you that the $50 million appropriated in 1987 for the leaking underground storage tank response program also will fund initial program implementation in 1988—we did not reflect a new request for fiscal year 1988 for this response program. We are in the process now of developing guidance, with the States, on how we're going to implement this response program. It will be largely implemented at the State level. We will develop guidance and initial cooperative agreements with States during the spring and summer of this year, 1987. Because of this interaction we're having with the States, we'll have a far better needs assessment for the underground storage tank response program during 1987 and 1988; and if it reflects that we need additional funds beyond the $50 million, then I'll be prepared to request additional funds beyond the $50 million. Obviously, this new Trust Fund derives from a separate tax on gasoline; we'll have the funds available in the Trust Fund as they're needed. I don't have a better needs basis for requesting the funds today than I had when we submitted the 1987 budget, but I think I'll have a far better one as we complete this process with the States during the next several months.

The overall two-year effort on Superfund reflects moving the program forward rapidly, and I'll show that on the next chart.

First, we've directed the majority of the money—as much as we possibly could—to direct site work. Now, we have tried to identify for you what direct site work is. It is the construction money at a site. It is the engineering money at a site. It is the removal program at a site. It is the contract lab program that supports the sampling at a site. It is everything at a site that's actually involved in cleaning up that site.

Secondly, site-related are those things that would be somewhat more indirect, such as, the National Response Team, which is responsible for overseeing the emergency response program and similar programs. Program support is your traditional administrative support—personnel costs, accounting costs, and others.

I've directed the staff over the last several years, and specifically with the new authorization, to try to maintain as much of the priority and as much of the money on direct site work as possible. And as you look at the details of the budget you will find that's where our priority is.

You will see from the next chart the ramp up of activities under the Superfund effort. The top line is the removal program. As you know, we were operating at about 200 removals a year up until the slowdown. During the slowdown, we continued to maintain that as our highest priority for funding, and we maintained approximately that level. With the new authorities under Superfund for a broadened and extended removal program, we now feel we can move that program up to a higher level. As you know, you've authorized us to expend up to $2 million at a removal site; that will be a major priority and a continuing priority under the program.

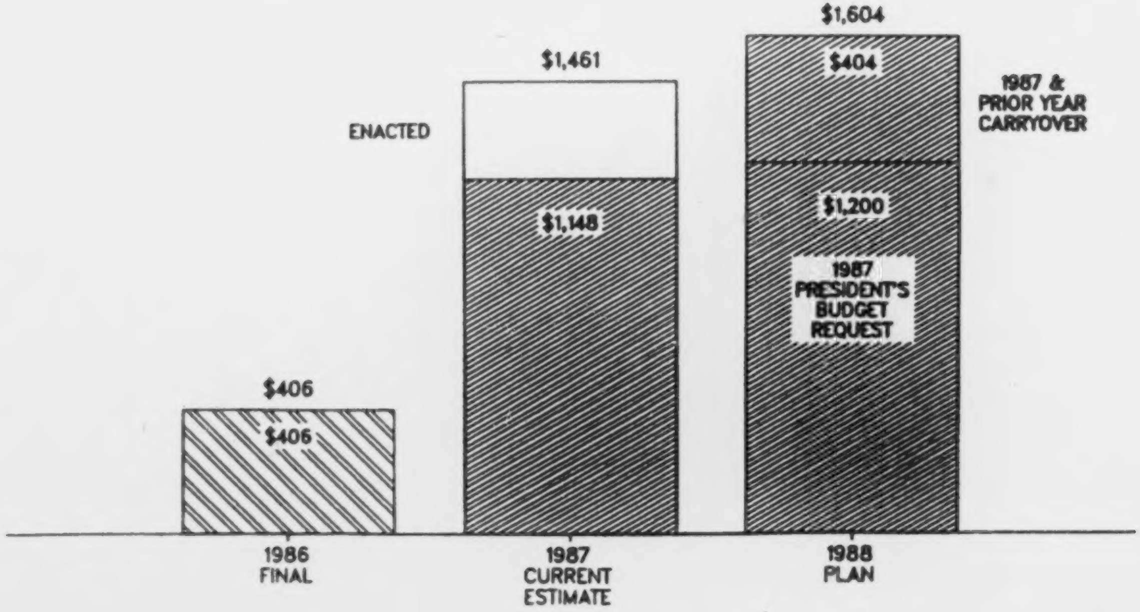
Secondly, notice the engineering studies at the National Priority List sites, obviously reflecting the ramp down into 1986, quickly bringing it back up to the kind of levels that we and Congress discussed during reauthorization. And RIFS, Remedial Investigation Feasibility Study process, is moving back up very quickly.

Remedial design, which is the actual design once we've decided how to clean up a site and remedial action, which is the actual construction once we've made that decision and designed the project are moving back up, consistent with the kind of direction that I suggested when we talked about reauthorization, and that is largely based on where that pipeline of engineering studies was that were nearly completed. We're moving it back up; we'll do every design and every construction that's ready when the engineering phase of the site work is completed.

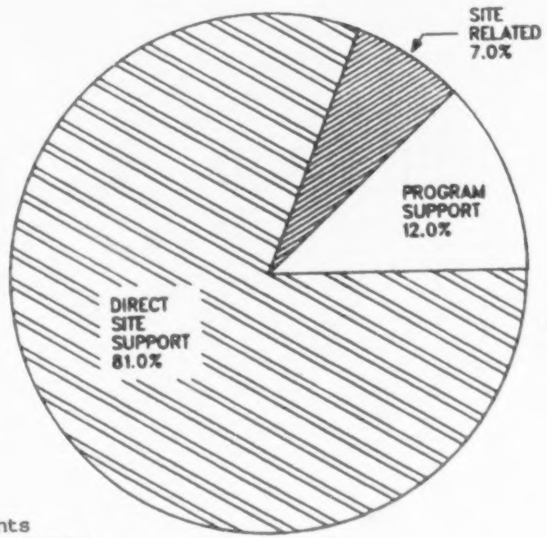
So we feel the Superfund program is moving ahead strongly. It's a complex program; it's a tremendous challenge for the agency. As a matter of fact, I'd say it's probably the biggest challenge the agency has ever had. It's a very comprehensive statute, as you know. The administrative requirements of moving the program forward to a strong level, and hiring a substantial number of additional personnel are examples of the things we're doing to strengthen and expand this program.

WITH REAUTHORIZATION FINALIZED, THE SUPERFUND/LUST REQUEST REPRESENTS A TWO YEAR FUNDING PLAN OF MORE THAN $2.7 BILLION

($ IN MILLIONS)



SUPERFUND RESOURCES BY MAJOR ACTIVITY

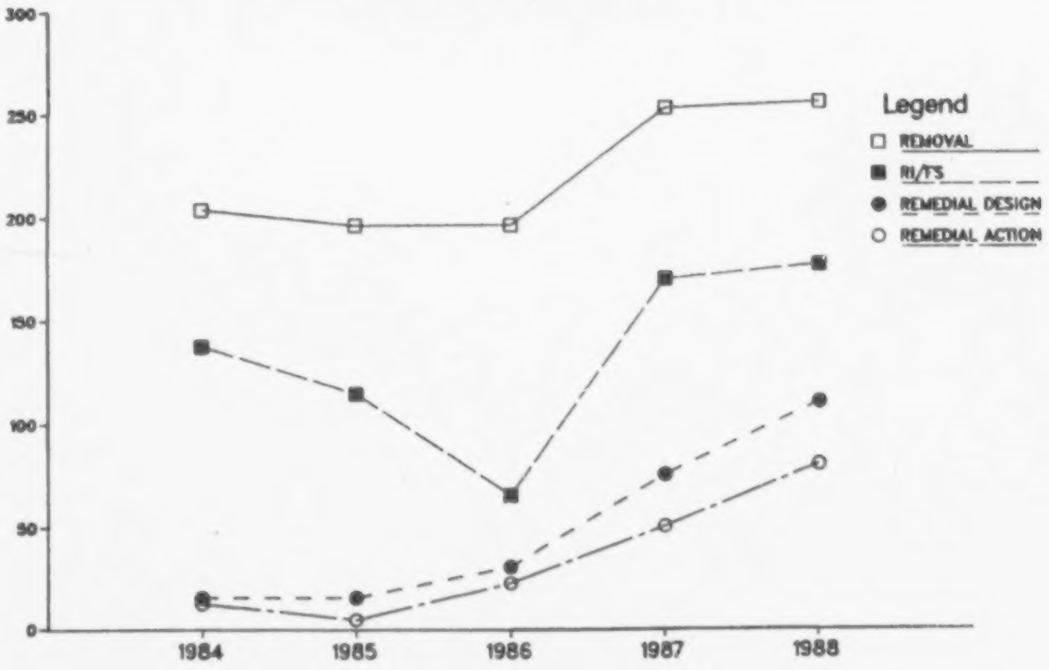


NRT/RRT Activities
Cost Recovery
Non-site research and health studies
Criminal Casework

Information Management
Policy/Planning
Administration
Training
Community Assistance Grants
Siting Capacity Grants
Office of the Inspector General
Other Agencies Support

Removals
Remedials
Enforcement
Operation and Maintenance
Contract Lab
Contract Management
Community Relations
Responsible Party settlements
Research on site assessments, SITEs

THE FY1987–88 SUPERFUND BUDGET ALLOWS THE AGENCY TO REGAIN ITS MOMENTUM AFTER THE DELAYS OF REAUTHORIZATION



Mr. THOMAS. The overall research and development budget increases; but, as you know, you have authorized a broadened research and development program under Superfund, and that is a part of the total research and development increase, the substantial majority of the increase, going from a $40 million level in 1987 to a $60 million level in 1988. Portions of that, in our budget particularly, are reflective of the technology development aspects of the new Superfund law. We've got a project in place—and as a matter of fact, we're moving with the first 10 site demonstration projects—to try and work with industry to develop new treatment technology for hazardous waste disposal on-site. The majority of those are new incineration technology but we also have other technology as well. It is a technology-forcing provision that you reauthorized and one which I feel has tremendous promise as far as hazardous waste treatment and disposal is concerned.

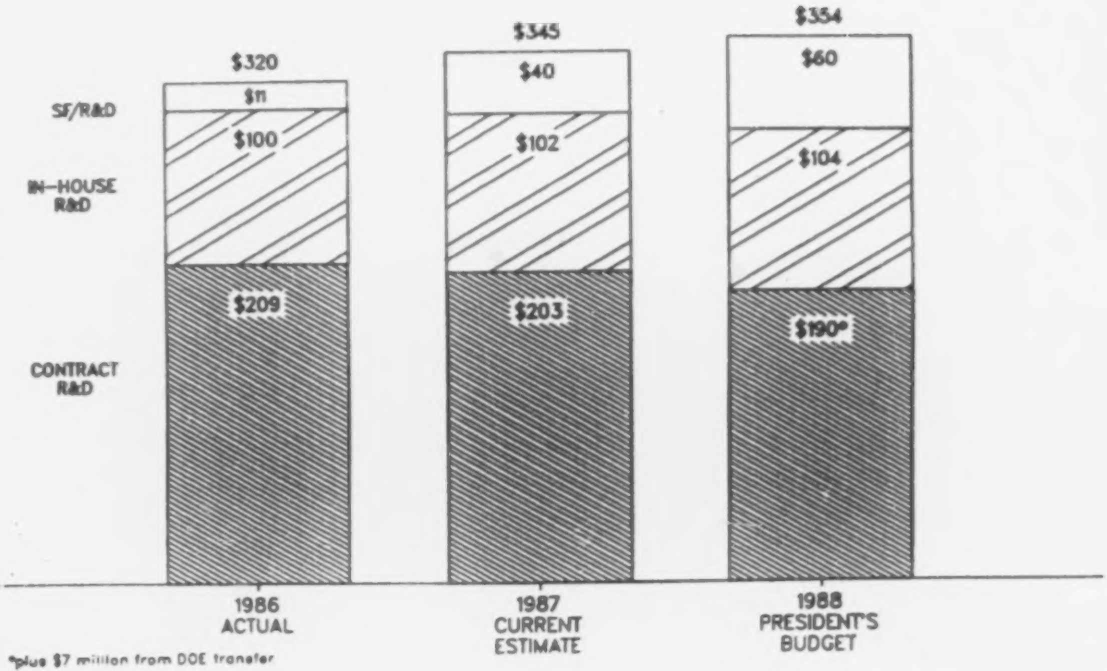
Our in-house research program increases slightly, reflecting a continued emphasis on our part to try to build gradually our in-house capability in the agency.

The contract R&D program decreases slightly, but the $190 million doesn't reflect $7 million which will be transferred from the Department of Energy budget during the year.

So overall research and development is maintained. The majority of our programs have increased in our Superfund program.

THE FY 1988 ORD BUDGET PROVIDES STRONG SUPPORT FOR THE NEW SUPERFUND REQUIREMENTS

($ IN MILLIONS)



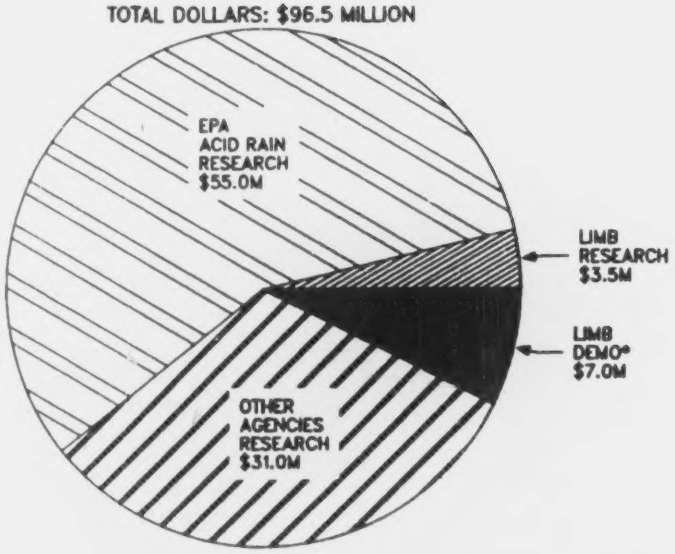
*plus $7 million from DOE transfer

Mr. THOMAS. The acid rain issue, and the issue of the Envoy's recommendations, is one that we've moved forward to support in EPA, both when the recommendations came out as well as now, with our budget. As you know, a major part of the responsibility for the acid rain research program rests with EPA; and, in fact, our budget reflects the largest part of the research that's being done on acid rain, $55 million, which is approximately the same as last year and reflective of the request which our researchers feel is necessary to continue the program that you authorized several years ago. Other agencies' research is about $31 million; the overall acid rain research program is at about the level of last year, fully reflective of the recommendations that were in the Envoy's report, incorporating all of their recommendations for research.

I pointed out here our clean coal demonstration project, which we've had underway for a couple of years, just to ensure that you understand that EPA does have a responsibility and is carrying it out, concerning clean coal technology. This is our limestone injection, multi-stage burner project, which is a retrofit technology. We will begin our commercial demonstration stage this year. It's a joint project between us, the utility, and the State of Ohio. We feel it is a promising technology, particularly for retrofit of existing plants, particularly for sulfur dioxide and now, with some modifications, for nitrogen oxide as well.

WE SUPPORT THE IMPLEMENTATION OF THE SPECIAL ENVOYS' REPORT

($ IN MILLIONS)

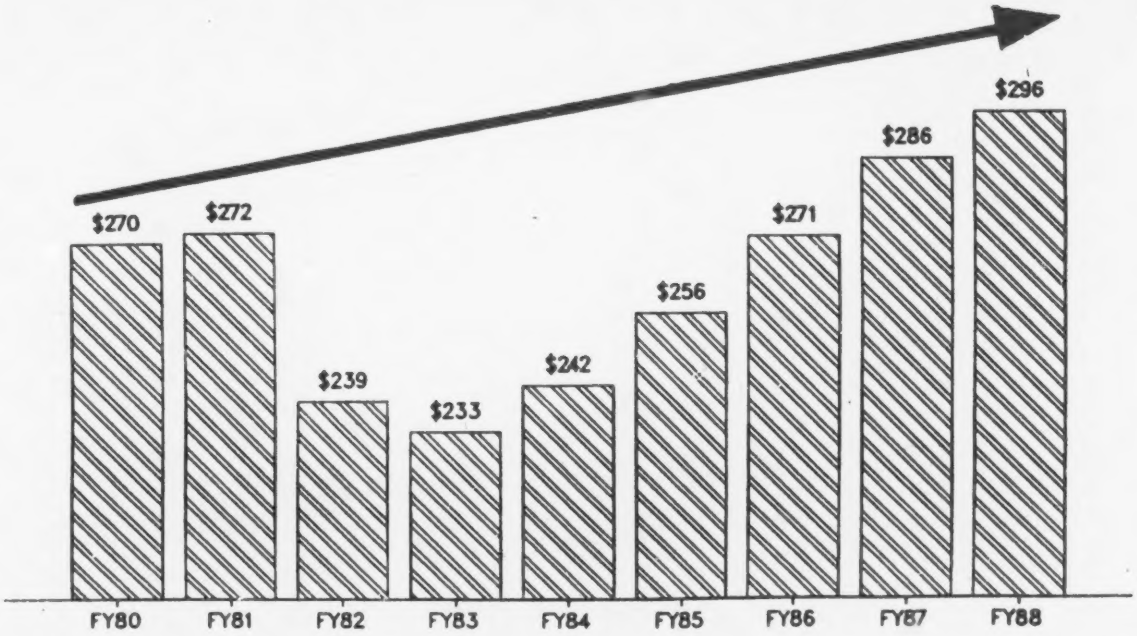


* TO BE TRANSFERED FROM DOE

Mr. THOMAS. Finally, our budget reflects our continuing commitment to the States. Since I've been with EPA we have worked to increase the overall support to the States for our programs. That's reflected again in 1988. We've brought the level up; it's basically stable in all of our State grant programs with the exception of two. We've requested additional funding to implement the wellhead protection planning program. It is basically, the groundwater protection planning program that was incorporated in the Safe Drinking Water Act, and the request is about $8 million for the States in 1988. Also, a request for about a $1.5 million increase in our pesticide certification and training program, bringing that from $2.5 million to $4 million this year, reflects our feeling that we need to increase the overall training that's being done at a State level for pesticide applicators and users.

EPA CONTINUES A 5 YEAR EXPANSION OF STATE GRANTS

($ IN MILLIONS)



Mr. Thomas. We feel the overall budget, as I indicated, reflects both State and Federal requirements to implement the responsibilities you've given us. Those decisions were made considering the kind of constraints that I indicated. What did we feel was the environmental risk? How mature had existing programs become? What kind of statutory mandates were we facing? And what were the fiscal constraints that we were operating within?

We appreciate the opportunity to be with you, Mr. Chairman and members of the committee, and we'd be pleased to answer your questions.

Senator Burdick. Mr. Administrator, before we go to questions, one of our committee members has arrived.

Senator Chafee, do you have an opening statement?

Senator Chafee. No, I do not, Mr. Chairman. Thank you very much.

Senator Burdick. If it's agreeable with the committee, we will call upon the members in the order of their appearance, and limit, if possible, questions to five minutes. If we need another round, we'll go around again.

I have one or two questions for you, Mr. Thomas.

Yesterday, Congress prevailed in the battle with the Administration over necessary funding for the Sewage Treatment Construction Grant Program. This, in fact, may be only the first round. Funding will only become available through the annual appropriation process. Will the Administration request full funding, including a supplemental appropriation for the current year, of $1.2 billion now that the program is reauthorized?

Mr. Thomas. Mr. Chairman, we are currently reviewing whether a supplemental request would be required under the reauthorized Clean Water Act, and that will cover both the construction grants portion as well as the other new authorities under that act.

I would indicate that we had already stated that we would request a supplemental for $800 million for this year once that act was reauthorized. That was reflective of the $2 billion level which we had suggested for this year. I also understand that Congress last year earmarked, through the appropriation process, an additional $1.2 billion for this year. It is my understanding that the Appropriation Committees on the House and Senate sides are considering now moving forward with their own action, reflective of the earmarking last year. So I would say for this year—we haven't fully decided, but I would say that our proposal of $2 billion was the proposal we were suggesting for appropriation this year. It's my understanding that the Appropriation Committees felt that they resolved that issue last year at $2.4 billion, which is reflective of your reauthorization. We are still in the process of analyzing it.

Senator Burdick. You're still in the process of deciding whether you're going to go for $2.4 billion?

Mr. Thomas. We are deciding whether to ask for $800 million or $1.2 billion or nothing, because the Appropriation Committees say, "You don't need to; we have already settled it."

Senator Burdick. Will the EPA's budget request for future years be in the amount that Congress has authorized?

Mr. THOMAS. For the construction grant program, Senator, it's difficult for me to answer that on out years. I would indicate that for fiscal year 1988, we have proposed $2 billion.

Senator BURDICK. As you know, Mr. Administrator, the Clean Water Act was enacted into law yesterday. Although both Houses of Congress passed their versions of the legislation almost two years ago, the agency's fiscal year 1988 budget makes no reference whatever to the likelihood that the EPA would have to implement this provision. The Administration, while opposed to the bill for what it termed "budgetary reasons," also supported most of its regulatory provisions. Can you confirm my expectation that the Administration, with your support, will amend its 1988 budget request to begin implementation of the non-point source, storm water, and other important clean water programs?

Mr. THOMAS. Mr. Chairman, we're still in the process of looking at exactly what kind of funding is going to be required in 1987 to implement the Clean Water Act. I've indicated to OMB that that process is underway, and that we would be communicating to them what we felt. I think we'll be doing that shortly.

There's no question, as far as we're concerned, on issues like storm water permitting, that we intend to move forward with that vigorously. That was a program that is already underway. As a matter of fact, we think the law clarified the position we should take on that far better than the existing law did.

On the non-point source appropriation, I cannot tell you today that we're going to be requesting supplemental funds for that.

Senator BURDICK. What steps, exactly, has the agency taken or will be taking to budget for new activities mandated by the amendments?

Mr. THOMAS. We are in the process now, and have done preliminary work, on looking at what additional requirements would be needed as far as our budget is concerned.

Senator BURDICK. Do you think the agency will request supplemental appropriations for this purpose?

Mr. THOMAS. There's a good possibility.

Senator BURDICK. Thank you very much.

The Senator from Vermont?

Senator STAFFORD. Thank you, Mr. Chairman.

Mr. Thomas, let me officially say welcome to another session of this committee. You are familiar with the Clean Water Act and Superfund at least as well as the members of this committee since you participated in giving us advice and counsel through their latest rewrites.

Coming to Superfund and being parochial for just a moment, something I learned under Jennings Randolph, I note—and you probably know—there are two sites in Vermont, one in Springfield and one in Burlington. With respect to those two sites, we are advised by your regional office that the money has been allocated for work on those sites, $600,000 in Springfield and $100,000 in Burlington. But the regional office is unable to explain to us or to themselves where the money is. It hasn't arrived, and the work is being held up at those two sites. If that could be cleared up, my parochial problems would be solved.

Mr. **Thomas**. Senator, I will get an answer to that parochial problem as quickly as possible. It should be in a day or two after this hearing.

I can discuss the overall issue, because there may be other Senators who have similar questions about moving forward with funding under Superfund. We went to Treasury through OMB with a request for advance borrowing twice; the first, $200 million, and the second time, $250 million for this year. We've gotten those authorizations from Treasury. OMB has apportioned the money to us as of February 2d. We went forward with an allocation to our regions from the second $250 million, which should fully fund the pending remedial investigations, remedial designs, and remedial actions that were ready to go through the second quarter of the year.

The only holdup, I would think, on those projects was just that allocation on February 2d. We'll confirm that for you.

Senator **Stafford**. Thank you very much.

[The information requested follows:]

Funding for Burlington and Springfield, Vermont Superfund Sites

OLD SPRINGFIELD LANDFILL, SPRINGFIELD, VERMONT

Over $700,000 has been budgeted for remedial investigation feasibility study (RI/FS) and community relations support activities in 1987. To date $720,000 has been obligated for remedial investigation feasibility study (RI/FS) work. The majority of this money will be obligated during the third quarter of 1987. A record of decision is expected to be signed for this project in the second quarter of 1988.

PINE STREET CANAL, BURLINGTON, VERMONT

The Environmental Protection Agency has completed a removal action at the site for a total of $591,000. In addition, we are planning to obligate over $50,000 for workplan development in support of negotiations with potentially responsibile parties in 1987. If the potentially responsible parties will not conduct the remedial investigation feasibility study, the Agency is prepared to fund this action (estimated cost $850,000) in the first quarter of 1988.

Senator **Stafford**. Mr. Chairman, I have a number of questions, and time being short with many members present who would want to ask questions. I would ask unanimous consent that all members be given the option of submitting their questions in writing.

Senator **Burdick**. Is there any objection?

[No response.]

Senator **Burdick**. So ruled.

Senator **Stafford**. Last year, Mr. Thomas, the Congress carefully considered the amount of funding that should be available to clean up the Nation's hazardous waste sites. In the long and difficult reauthorization debate, it was decided that Superfund should receive $8.5 billion over the next five years. It was a central issue in the Superfund debate. We put just exactly $8.5 billion into legislation, and the President signed that bill into law. Does the President's budget request keep the $8.5 billion commitment?

Mr. **Thomas**. Senator, the budget request that we've made for 1987 and 1988 reflects the amount of money we feel is necessary, as I indicated, to get the program back up to speed and running aggressively. I will say that as you look out over the five-year period of time, the problem I have today in suggesting how much money we're going to need is several fold. One, I really have very little idea at this point how much the new site constructions are going to cost as we roll over into outyears. I'll know far better as we go through this year and next—that is, implementing the new requirements of the act, particularly for site selection. Those costs are going up; as you know, we talked last year about how much, and it's going to go up a lot as we get into more difficult sites and as we implement some of the new technical solutions. So I can't tell you how much over the next five years we're going to need.

The budget does reflect an effort on our part to try to refrain from using the general revenue portions that you had authorized to the maximum extent possible. I would suggest that over the next five years we're probably going to need anywhere from—based on what I see now—$7.5 billion to $9 billion, maybe more. We're going to try to restrain using general revenue if we don't need it. If we need it to do the work that you've authorized us to do, then we'll request it.

Senator STAFFORD. Mr. Thomas, you've had a chance to review the Department of Energy's program that has been put together to fulfill our commitment to Canada on the acid rain program. In your view, does the DOE program meet the conditions set out in the Envoy's report?

Mr. THOMAS. Senator, I think it does. There's debate on whether it meets every one of the criteria or how it meets the criteria. I was in Canada for the last couple of days, so I've had some fairly animated discussion about this. The one that they are particularly concerned about is the criteria that talks about short-term transboundary emission reductions. The overall thrust of the Department of Energy projects, just like ours, is to go forward with a clean coal technology program to get technology that will be available to burn coal quickly, as soon as possible. And it's very difficult to try to get those technologies tested in a place that is going to have a specific impact on transboundary emissions. So I think that's the one where there's the most debate. But overall, I think we are moving forward with the thrust of the recommendations that the Envoy has made on clean coal technology.

There is also debate on the overall amount of money. I think we're headed in the direction of the overall amount of money that the Envoy suggested.

Senator STAFFORD. Well, thank you. I hope we are moving forward. I will say that the Senator from Vermont has had some frequent and spirited conversations over the telephone from Canadian officials on this entire matter of the $5 billion joint effort.

My time is up. If there's a second round, I may have a few more.

Senator BURDICK. Senator Mitchell?

Senator MITCHELL. Thank you, Mr. Chairman.

Mr. Thomas, I'd like to pursue the line of inquiry that Senator Stafford was pursuing.

First, I'd begin by reading to you from the Envoy's report:

> The U.S. Government should implement a five-year, $5 billion controlled technology demonstration program. The Federal Government should provide half the funding, $2.5 billion.

President Reagan stated that he embraced and endorsed that report. On that day in Canada his spokesman, Mr. Speakes, said:

"The Administration will seek to provide in the future the funding recommended."

In the budget this year and I now quote the Administration's budget—the Administration "proposes an additional $350 million in spending over five years for new clean coal technology demonstration projects." The justification given by the Administration is that over the period 1981 to 1985, the Administration had committed $2 billion to clean coal technology.

What has happened has been that the Administration made an explicit promise to the Canadians to devote $2.5 billion in the future. The Administration now comes in and proposes to spend $350 million over the next five years, and claims that it met that commitment to the Canadians by virtue of having spent $2 billion between 1981 and 1985.

Have I accurately stated the situation, Mr. Thomas?

Mr. **Thomas**. Well, Senator, as you know, there's a tremendous amount of money going into clean coal technology development in this country—Federal, private, State, local.

Senator **Mitchell**. Is any fact I've stated incorrect?

Mr. **Thomas**. I don't know, Senator.

Senator **Mitchell**. Would you check and get back to me?

Mr. **Thomas**. Yes, sir.

Senator **Mitchell**. I've read directly from the Envoy's report, from a statement by Mr. Speakes, and from the Administration's budget.

Mr. **Thomas**. Then I feel certain it's correct.

Senator **Mitchell**. Well, what's happened, Mr. Thomas, is that the Administration has perpetrated a massive deception on the Canadians.

Mr. **Thomas**. Senator, I couldn't disagree with you more strongly. There is no intention on the part of the President not to go forward and implement the Envoy's recommendations, to my knowledge. He's committed to go forward with that. The issue is how fast we're going to be able to put funding in it, how fast is industry going to be able to receive funding to implement that technology. There is a tremendous amount of money going into clean coal technology in this country; the overall intent, just as you stated, the Envoy stated, and everybody else has stated, is to get the technology developed as soon as possible so that it can be available in a commercial stage to be used.

Senator **Mitchell**. Well, let me just read to you again:

> The recommendation is that the U.S. Government should implement a five-year, $5 billion program

The Federal Government, $2.5 billion. That's what the recommendation is.

Here's the Administration's budget, I read from it now:

> The Administration proposes an additional $350 million in spending over five years for new clean coal technology demonstration projects, with at least as much funding to be provided by industry.

Mr. **Thomas**. Senator, that was under the legislation that was authorized, actually, before the Envoy's recommendations for clean coal technology. As you know, the authorization is broader and includes more projects than the projects specifically recommended under the Envoy's reports.

I will tell you again that, to my knowledge, there is no movement away from implementing the Envoy's recommendations by the President, and I anticipate we will fully go forward and implement those.

Senator MITCHELL. Well, all I can say is that if I were Mr. Mulroney, I would be very, very cautious about accepting any statements made by this Administration at the next summit meeting about acid rain. That's up to him.

Now, in December of 1986, in the EPA Journal, you said with respect to global warming:

> If we wait until health and environmental impacts are manifest, it might be too late to take adequate steps to address these problems. We must realize that there will always be scientific uncertainty associated with these complex problems. We will have to be prepared to act despite these uncertainties.

Those are your words.

For the seventh consecutive year, this Administration has refused to apply that standard to the problem of acid rain. For the seventh consecutive year, the Administration comes before the Congress and proposes continued research and refuses to support an adequate control program. For the seventh consecutive year, I asked the Administrator of the EPA, and I now ask you, if you say more research is needed, please identify for this committee the specific questions which you feel must be answered, the specific studies which over the past 7 years you have proposed to respond to those questions, and a specific date on which you feel the Administration will say it has enough information to provide a recommendation to the Congress.

Mr. THOMAS. Senator, I'd be pleased to do that. (See p. 71.) And as you know, you and I have discussed the issue several times in the past. I affirm, by the way, the same belief of global warming that was stated in those statements; also, on stratospheric ozone, it has guided me in the kind of direction I've tried to take there. It is also an equation that I think applies to acid rain, just as I think it applies to any number of other issues we deal with in EPA. And that is, we can never, I believe, in most of our issues, have certainty beyond doubt as we take action. It is a matter of degree as to when we can make a risk management decision. In this case—an environmental risk management decision concerning acid rain—I have not reached that point. I have an ongoing assessment from my point of view on the status of the sciences, the status of the findings, so that I in turn can make recommendations both to you and to the President on whether we need to modify our policy on acid rain, whether that policy should or should not include additional controls.

I feel like, as I stated in our lengthy session last year on the acid rain research program, that we are moving forward with the research program that Congress authorized in 1981 on acid rain. We're doing it in a way, I think, that's providing us information, and I feel like this year, 1987, and next year, 1988, much of the information is going to be available to us to help answer some of my questions. Specifically, one of the questions I have been anxious to get answers to is the direct delayed response issue which deals with watersheds, which deals with buffering capacity and overall capacity to absorb and assimilate sulfur dioxide. That is a major issue as far as the Northeast is concerned, and the Southeast. I feel like the work we've got underway and have committed to come forward with in this year, 1987, will provide us much better information on that particular question.

Senator MITCHELL. Well, my time is up. I'll just say that your answer demonstrates very clearly, beyond any doubt, that this Administration is determined to serve out its entire 8 years without making any recommendation on acid rain control and to use the subterfuge of research as a mechanism for justifying that failure to act.

Senator BURDICK. Senator Lautenberg?

Senator LAUTENBERG. Thank you, Mr. Chairman.

Lee, in the 1988 Superfund budget you clearly stated that no funds would be raised from general revenue, that it's not your intent to ask for them. As you know, Congress authorized $1.25 billion over five years from general revenues; and yet, the OMB passback document indicates—confirming what you said—"The Administration is assuming no general revenues will be used for Superfund over the life of the program."

That means that we have a $7.25 billion program, not the $8.5 billion which Congress authorized. Does this mean that the Administration decided to ignore Congress on this issue, and just never intends to use the authorized general revenue?

Mr. THOMAS. No, sir. It's basically reflective, as I said, of what we know today and what our projections can be over the five-year period of time and what we're trying to do as far as fiscal restraint is concerned.

As I indicated, I think we're probably going to need anywhere from $7.5 billion to $9 billion. If it's on the low end, we would like for the general revenue not to be used. If it's beyond the low end, then I think we're going to be in talking with you about requests for general revenue. But I don't think we're going to know that until well over into 1988 as we get the kind of information in from these designs that I showed on the board.

Senator LAUTENBERG. You used the "ramp up" reference in your presentation. And at the level that you're recommending for 1987 and 1988, what would that leave us if you project that straight out as a target for the fifth year of the program in terms of reserve?

Mr. THOMAS. It all depends on what the overall site costs are going to be for constructions, depending on what your assumption is, whether it's $25 million or $50 million or $10 million. Our best estimates are that it's going to cost us—at those kinds of levels—between approximately $7.5 billion and $9 billion over that five-year period of time, which means that in the fifth year we would be running between $1.25 billion and $1.5 billion.

Senator LAUTENBERG. Now, that's hard to see. The numbers for the first two years were $2.5 billion; is that right?

Mr. THOMAS. Well, they're $1.1 billion and $1.6 billion for 1987 and 1988.

Senator LAUTENBERG. Okay. So whereas if we extended the program out, just dividing the years into the total, we'd be at the $1.7

billion level times five, right? So we're going to be accumulating——

Mr. **Thomas**. It would be about $7.5 billion.

Senator **Lautenberg**. Yes.

Mr. **Thomas**. Running at that level, it would be about a $7.5 billion program.

Senator **Lautenberg**. Right, but Congress authorized $8.5 billion; so we're talking about a very significant sum of money, almost equivalent to the first Superfund five-year program.

Mr. **Thomas**. Well, the budget that we requested for 1988 is as much as we spent in the first five years.

Senator **Lautenberg**. Yes. Well, we don't want that same accomplishment either, Lee, you or I.

So that when we look at the proposal as it has come out, what is being said is that in one very circuitous manner, we're not going to look for that money. We disagreed with you on the funding level. The President signed the bill, obviously under enormous pressure from the public and the Congress; he went ahead and signed it. But frankly, to this Senator, it looks like the way to cut short the size of the program by simply saying, okay, even though we've been directed, even though we've been, essentially, mandated to go ahead and secure those funds, we're not going to do it.

Mr. **Thomas**. No. Senator, we don't want to cut short the size of the program. As a matter of fact, I think the program is going to run for a long time, 10 or 15, 20 or more years. And I don't think trying to cut it short at this period of time has any impact as far as where we're going overall with this program. We want to get the sites cleaned up and behind us, you and I both. You authorized a lot of things in that program beyond site cleanup. You authorized broad-view research and development authorities, and other things.

We're trying to exercise some discretion, based on the kind of restraints that I went through, in saying how we want to run the program. We want to try to put as much of it on cleaning up sites as we can, as much as we can possibly spend and manage well. That's what we're talking about.

Senator **Lautenberg**. You know that I have more than casual interest in the right to know section of Superfund, and it's my understanding that the agency is considering a supplemental request for fiscal year 1987 for this. What is the funding proposal?

Mr. **Thomas**. Title III funding is an issue that I'm glad you raised. It's an issue that is important to implementing title III of Superfund, the community right to know provision that you were so involved in writing.

We've requested about 65 work years and about $16 million this year, about 85 work years and about $19 million next year for title III, the community right to know provisions. We have looked hard at what we need. We pulled it down to what we think is a tight program but one that will carry out the authorities in that law. As you know, there are a number of deadlines in that law, some of which we've already met. We think it's extremely important that we implement those provisions of the law. The problem I've got is that in 1987, the year we're in now, there was not an appropriation for title III. There was an appropriation for Superfund overall, but there is a debate as to whether I can use any of the Superfund money for title III or not. I would like to, and I have requested of you the authority to do that in my budget, both for 1987 and for 1988, in the amounts I indicated.

There are people who have indicated to me that they don't think that should happen, people on the Hill in oversight capacities; the chairman of the Energy and Commerce Committee, for instance, on the House side wrote me a letter and indicated he didn't think that was appropriate.

I would like to work with the Appropriation Committees to try to work out that issue. I am using resources in my budget now to implement title III. I will need to resolve this issue this year so I can reimburse those resources to be used for other purposes. Now, I am probably not going to request a supplemental request for title III this year because of the fact that we feel like we have the authority to use the Superfund money.

Senator **LAUTENBERG**. My time is up. I would try to come back; and, Lee, if we don't get back, I'd like to submit some questions as you've heard requested.

Senator **BURDICK**. Senator Mikulski?

Senator **MIKULSKI**. Thank you, Mr. Chairman.

Mr. Thomas, it's again a pleasure to be here with you. We've had a long relationship in the House, whether it was in Merchant Marine or in Commerce, and I look forward to continuing that relationship.

Before I get into my questions I'd like to thank you for a few things. One, for the marvelous hearing officer that you had in Maryland on the ocean incineration issue. I think he did a good job with the public; I think he did a good job in the report to you, and it was that kind of independent spirit, presenting you with the objective information, that I think inspired citizen confidence in that. I'd like to specifically mention that hearing officer because he did present, I think to both you and I and to other policy makers, the facts.

Also, your work on the Chesapeake Bay is very, very much appreciated, which takes me to a question about the bay. Through the Clean Water Act we now have funding for the Chesapeake Bay Office, and I know you, like I, want a dollar's worth of services for a dollar's worth of taxes. There has been some question about the operation of the bay cleanup office in Annapolis in terms of its contract letting, its efficiency, its effectiveness. Could you, as we spend these dollars, give me a sense of where you'll be going to make sure we make the wisest use of our dollars?

Mr. **THOMAS**. Yes, Senator. First, I would like to say thank you for the comment about our hearing officer on ocean incineration. As you know, that was a very difficult process, and I agree; I think he did a good job in making those recommendations the way he did.

We have had a difficulty as far as the Chesapeake Bay Office is concerned, as reflected in an Inspector General report of several months ago. We feel—particularly out of our Philadelphia regional office which oversees that Chesapeake Bay Office—that we are very much on top of the issues that were raised there as far as contract management is concerned, and we feel we can assure you, as well as other overseers of our agency, that we'll get a dollar's worth of product for a dollar spent, and we'll be accountable for it through that office as well as others.

Senator **Mikulski**. So Region 3 will take the Inspector General's critique and is moving on that already?

Mr. **Thomas**. They already have, Senator, and provided us with a detailed written review of it and how we're moving forward to correct all those deficiencies.

Senator **Mikulski**. One other question, Mr. Chairman, and this will be the extent of my questioning in the interests of time.

As you know, Superfund legislation was held up in Congress for a long time, a battleground. My concern is for the communities who fell between the cracks during that congressional hiatus. I specifically note Adamstown in Frederick County, Maryland, in which we had major industrial pollutants. It was declared a Superfund site; the county and State governments moved ahead and spent $600,000 in terms of cleanup costs, but they then say that they cannot be reimbursed. It met your criteria but it wasn't declared because of certain budget problems. Essentially, the county and the State went ahead; they were the good guys. They didn't wait for you and I to resolve our problems.

Is that, in effect, so? That communities who met the criteria who were not declared during this hiatus, then, essentially could not qualify for, say, the expenditures they made?

Mr. **Thomas**. Senator, I can get you specific information on Adamstown.

I will say there were a number of communities that went forward, both State and local, with action at sites. We had a process by which we could, in fact, assure them that there would be reimbursement if there were funds available to us, that there were procedures to ensure that communities could move forward if they wanted to. For instance, in New Jersey and New York and a number of other States, they proceeded to deal with sites while we were going through the process, as you indicated. I would have to find out the specifics about Adamstown, as to whether they fell into that position or not.

Senator **Mikulski**. Well, I'm interested in Adamstown from two perspectives. Of course, it's a county in my State, in which we've grappled with a very serious problem; and then I'm interested in it from a policy perspective, that here are communities that really responded, didn't wait for you and I.

By the way, Frederick County gave EPA high marks for sitting down and working with them and giving very, very solid technical assistance as we resolved the Adamstown issue. So we're not faulting EPA; we want to take a look at the policy making. And again, my county people tell me your EPA people really were excellent in terms of the technical assistance they provided us.

Mr. **Thomas**. Good. Thank you, Senator.

Senator **Mikulski**. So let's get some information on that.

Mr. **Thomas**. We will do that, and we'll follow up.

Senator **Mikulski**. Thank you.

[The information requested follows:]

SUPERFUND SITE—ADAMSTOWN, MARYLAND

Contaminated groundwater at the Adamstown site is believed to be the result of improper disposal of solvents by the potentially responsible party. Fifteen homes require an alternate water supply because of a direct contact/ingestion threat, per the Agency for Toxic Substance and Disease Registry health advisory. The extramural cleanup contractor ceiling for the site totals $646,000 with an approved project ceiling of $946,000.

The Environmental Protection Agency (EPA) is currently developing regulations for reimbursing local governments for response costs. The State/County may be expending funds on a water line extension at the site. However, EPA Region III representatives have not yet been advised of the costs incurred to date by State and local governments. The statute limits reimbursement to $25,000 maximum per response. The Adamstown site would be a candidate site for reimbursement, however no reimbursement can occur until after the regulations are finalized. An interim final rule should be completed by the end of the year.

Senator BURDICK. Senator Reid?

Senator REID. Thank you very much.

Both the State of New Jersey and the State of Nevada have an interest in a bill that passed last year that involved some $2.5 million; that's $2 million for construction of a new environmental research laboratory at the University of Nevada at Las Vegas. The EPA is renting facilities all over that area of town, and now there's been a decision made that that money is going to be rescinded. Do you have information on that?

Mr. THOMAS. Senator, that is a part of the rescission request for those funds that were added for those two facilities from last year. As we assessed our facility needs, and as we assessed the budget constraints, we felt we could not go forward with the construction of those facilities. We have overall funding needs for facility restoration and we didn't feel we could go forward with that, and that's why we requested rescission.

I would mention that under Superfund there is funding that's going to the Edison facility in New Jersey.

Senator REID. Federal agencies in Nevada are renting facilities all over; they're renting well over a million dollars' worth of private space. And whenever we talk about a capital expenditure, it's obvious that it would save the Government lots of money if we could cut down on renting. I would bet, if you looked at this more closely, you would find that it would save the Government money.

I would ask that you at your leisure, or someone from your staff, give me a call on this. I'd appreciate it.

Mr. THOMAS. Senator, we'd be glad to do that.

The Las Vegas facility, by the way, we feel is one of our strongest facilities as far as research is concerned, and we'd be glad to work with you and review that material with you.

[The information requested follows:]

UNIVERSITY OF NEVADA, LAS VEGAS FACILITY

We are proposing a rescission of $2.0 million for construction of an addition to the Environmental Research Center at the University of Nevada. The proposed addition would not beneift EPA, but would solely support University of Nevada activities.

Senator REID. One question, Mr. Thomas. When I first came to Congress, Congressman Jim Scheuer was the subcommittee chairman; and the first hearing that I attended on the Committee on Science and Technology dealt with acid rain. And I can remember at that time Congressman Scheuer talking about, all we ever do about acid rain is study it; we never do anything. This study is going on its fifth year, and we're still studying it. How long are these studies going to take before we actually do something?

Mr. THOMAS. Actually, the authorized program that the Congress asked the Administration to carry out was a ten-year program.

Senator REID. When did that start?

Mr. THOMAS. It began in about 1981.

Senator REID. Who said it would take ten years?

Mr. THOMAS. Congress authorized it for ten years.

Senator REID. And during the ten-year period it was all study.

Mr. THOMAS. It was an authorized research program, that's correct. That's not to say that during that ten-year period of time people might not feel that they should move forward with additional pollution controls—not necessarily based on that study; based on other information that they had. I'm sure that there were people in 1981 when that was authorized that probably felt like it should not be studied and, in fact, controls would be required. But the research program that was laid out is one that, I think, probably would take that kind of period of time to do. Much of the information that's coming forward, though, is incremental information. You don't have to wait for the conclusion of the study in order to draw conclusions. We have had major components of that research coming forward, for instance, some of the work that's going to be completed this year and next is very important information.

Senator REID. Thank you.

Senator BURDICK. Thank you, Senator.

Senator Durenberger?

Senator DURENBERGER. Thank you, Mr. Chairman.

It seems to me that over the last few years these hearings on the EPA budget always had some kind of a theme. Last year, everybody wanted to know the effect that Gramm-Rudman-Hollings was going to have on the agency's program; the year before that we were congratulating Lee Thomas and Bill Ruckleshouse for the first good budget we'd seen in a decade. And the year before that, I recall that Bill Ruckleshouse was down here telling us how he'd finally put EPA back on its feet, and so forth.

When you look at this year's budget, it's a little hard to find a similar overriding emotion. There is one subject that so dominates what we saw here today that it stands out in contrast to the rest, and that's the fact that Superfund is back. Drinking water is a winner; hooray! But there are some losers, too, but nothing that could be described as a pattern. So I went looking for a pattern of some kind; and buried in these hundreds of pages of budget is the story of the commitment and the determination of Mr. Thomas and of his Assistant Administrators, the people that we see up here and beat up on all the time.

The budget for operating programs for 1988 is $1.489 billion, and that's just $5 million less than was appropriated in 1987. That doesn't seem like a big story, but the bottom line doesn't tell you that EPA asked for $1.652 billion, which was a $160 million increase, that the OMB passback cut back to $1.320 billion, which cut them by $175 million, which would have been totally unacceptable up here. And that left the operating programs between EPA and

OMB about $350 million apart. It was Lee Thomas who went to the President and went line by line and got those cuts restored.

So I think, as we compare the EPA of the first several years of this decade and this Administration, and the knocks that even the President took at that time, with what this Administrator—and, by indirection, I guess, this President—accomplished this time, we certainly have to give the Administrator credit for true grit. I think all of us feel that; I wanted to say it. There are a lot of things we could complain about here this morning, but I think it's most appropriate that we, as the members of this committee who now have to fight for this in the congressional budget process, express to Lee the fact that we are indebted to him on behalf of a whole lot of people that we represent who will benefit.

So my first question, Lee, the last time I saw you we were at Synergy '87, and I know that—looking at the budget documents—we wanted $12.5 million for ground water—I'm talking about ground water and the wellhead protection program—and ended up with $8 million. At Synergy '87, I was lucky enough to con them into letting me speak ahead of you—really, I think I was scheduled ahead of you—and I said you were going to say certain things, or I implied that you were going to say certain things, but you had a different message when you got up. You surprised some people, including some of your staff, and I wondered if you couldn't briefly recap what you said at that time.

Mr. THOMAS. Yes, sir, and I appreciate your earlier comments, too. I think that's a terrific theme for this hearing.

We did have a good discussion that day on ground water, and I concluded—as you know—discussing the Conservation Foundation's forum recommendations, one of which called for national legislation on ground water protection, by saying that I felt that the idea of national ground water legislation was a good idea if it contained a number of things. I suggested that it would and should be largely centered at a State and local level as far as management is concerned, which is consistent with their recommendations and, as you know, not consistent with the ones that you were making. But I felt that it was in that direction that we should go forward.

I also had major reservations about the ambient level standard that they were suggesting, and I told them that I thought that that would be very troublesome in ground water protection legislation, but that I felt that the idea of separating and trying to deal with—within legislation—prevention versus corrective action, was very important. I thought we needed to look at and emphasize, more than we have done today, the prevention aspects of ground water protection. I was very concerned about the level of resources that we're pouring in this country into corrective action as opposed to prevention. I was also very concerned about the kind of levels of cleanup that we're trying to push for in corrective action, which I think are often unrealistic as far as technology is concerned, and which drain resources for little or no health or environmental benefit in many cases. I think those resources could be used very effectively in a prevention program. And I made those kinds of suggestions.

But overall, I made a number of comments that I felt could be incorporated in national legislation and ended up by saying, as you can hear, this is not the typical environmental legislation that has been passed over the last several years, but I would like to work with you to see if we couldn't fashion something like this.

Senator DURENBERGER. Thank you very much, Mr. Thomas.

I have no more questions.

Senator MITCHELL [assuming chair]. Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman. We now do have a rollcall, but I would make one observation first.

I was very interested in the figures that Senator Durenberger brought out and in the figures that you might have asked of this Administration before OMB worked on them. I had an occasion to be on one of the electronic Sunday news shows not too long ago with Jim Miller in which we debated the educational budget, and another panelist said that he thought that Mr. Miller should be given the American Motion Picture Academy Award for acting in his attempts at defending the Administration budget on that occasion.

My question, however, is on ozone nonattainment. In the Clean Air Act amendments of 1977, the Congress established a deadline of December 31, 1987 for all areas in the United States to be in compliance with the ambient air quality standards. As we approach that date it appears that as many as 60 to 70 regions in the U.S. will not meet the standards. You've not made a decision on controls for evaporate emissions from motor vehicles. The agency has not moved to require controls for additional categories of hydrocarbon emissions. Had EPA acted more forcefully earlier, many parts of the areas that will not meet the standards could have done so.

I have a list, compiled by your staff, of 16 different actions which could be taken that would reduce VOC emissions by between 17 and 45 percent. My request is that—in writing, probably—you state exactly what action the agency has initiated, whether formal or informal, in each of these areas, and the approximate date on which these actions were first undertaken. For each of these specific subjects, please state with a simple yes or no whether the agency has first published an advance notice of proposed rulemaking, or secondly, a proposed rule, or third, a final rule, or fourthly, a control technology guideline, or lastly, a listing pursuant to Executive Orders 12498 and 12191. In the event the agency submitted a listing under either of these Executive Orders to the Office of Management and Budget, please state what action—if any—OMB took with respect to them. And in order to save time with the roll call in progress, Mr. Thomas, Mr. Chairman, I will submit this entire matter to you for response in writing.

Mr. THOMAS. Thank you, sir. I will make one comment, and that is that the ozone issue, I think, is going to be one of the toughest ones we deal with this year. If your question implies that the agency could have solved the problem or can solve the problem today with regulation, the answer is absolutely not. It's going to require the agency, the Congress, and the States to make very, very difficult decisions during the coming year, and we need to do it together.

Senator STAFFORD. Well, thank you. I have this and several other questions in writing that I will ask for a response in writing.

Senator MITCHELL. Thank you, Senator Stafford.

Mr. Thomas, I'd like to now turn to radon. As you know, I sponsored an amendment last year which became section 403 of a broader law, and it says, "The Administrator of the Environmental Protection Agency shall establish a research program with respect to radon gas and indoor air quality." And then it later specifically requires the Administrator to do certain things.

Now, you—the Environmental Protection Agency—has estimated that radon is known to cause between 5,000 and 20,000 lung cancer deaths each year. And yet the budget you've presented here today cuts by half radon research at EPA, and shifts research to the Department of Energy.

First, I ask you, do you have any evidence that radon is not the health threat that you originally estimated it to be?

Secondly, what legal justification is there for the transferring of this research to the Department of Energy?

Mr. THOMAS. Senator, I still agree with you that radon is one of the major issues we need to deal with as far as environment and public health is concerned, and the budget reflects increased emphasis on trying to get information out into the community, to the citizens, as to what the health threat is and what action they can take. You will see that our budget has actually increased as far as our field staff is concerned and as far as funding for our field staff to actually work with the States. We're carrying out the strategy that we laid out over a year ago that deals with both providing information to citizens on the risk, working with States to determine where we've got threats, and developing mitigation plans for homeowners. We've got a homeowner's guide out.

Now, let's discuss the overall research program that's being carried out by Federal agencies. The Department of Energy has had an active research program on radon for a good long period of time, and we've coordinated with them on it. They've done a lot of work and have a major responsibility for epidemiology, as far as radon is concerned; and what you see is, in my opinion, not a shift of responsibility from EPA to DOE. DOE's research program has been expanded; EPA's program is shifting far more into emphasis on field operations as we have completed our engineering research on various techniques for mitigating problems of radon, our research program on quality assurance for various techniques for measuring radon, development of our citizen's guide on the risk from radon. We're in full implementation.

Senator MITCHELL. Well, which is the lead agency?

Mr. THOMAS. We are the lead agency on the implementation in dealing with the community. I would say we are both working the issue as far as research is concerned. We are working on this overall January 17th report in both radon and indoor air, to lay out the research strategy. We have communicated, I believe, with the staff of the committee and told them that we're going to provide the report in two phases. The first part of the report should be up here in the next several days; the second part of the report, the detailed section of the research strategy, should be here in April. It lays out what we're trying to do in indoor air and radon. It references what's being done in other agencies.

Senator **Mitchell**. I don't see how you can call yourself the lead agency. You're proposing, as I understand it in the budget, about $11.25 million on research, $10 million by DOE and $1.25 million by you. And that division of resources makes it difficult to accept that you are, in fact, the lead agency.

Mr. **Thomas**. But, Senator, that's only associated with the research that's being done on radon. If you look at our budget, you'll see we've got over 50 people working on radon. Most of them are actually dealing with the problem in the field. We know what the problem is with radon. It causes lung cancer. What we want to do is work with the people to determine whether they have a problem in their house and do something about it. And we want confirmation and we want further information, but we're working as hard as we can with State health authorities in the field——

Senator **Mitchell**. I'll get back to that. I have to go vote; I've just got a few minutes. I would like to get back to that.

Senator Warner, your turn, if you care to proceed.

Senator **Warner**. Thank you very much, Mr. Chairman.

It's a pleasure to have my first opportunity as a new member of this committee to welcome this distinguished public servant, whom I have known for some time.

My first question is, do you sense any reluctance from the various Federal agencies now involved in the Chesapeake Bay cleanup program to continue their support?

Mr. **Thomas**. Senator, I don't. The Federal agencies are all still fully committed to the Chesapeake Bay program, and that includes a lot of agencies, from the Department of Defense, and particularly the Corps of Engineers, to the Soil Conservation Service of the Department of Agriculture. But I feel like they're all still fully committed to the Chesapeake Bay program and the kind of interagency commitments that were made over the last couple of years.

Senator **Warner**. As you know, Senators Mathias and Sarbanes—indeed, I think all the Senators from the States that border that magnificent national treasure—have been very active in this issue. In a December 31st letter to the Corps of Engineers, they replied that they were reviewing the Chesapeake Bay shoreline erosion study to establish the extent of the Federal interest in continuing the study. Do you imply from that that there may be some reluctance to go ahead with it?

Mr. **Thomas**. I don't think so, Senator. We just went through a major issue with the Corps of Engineers, for instance, on an overall three-dimensional model of the Chesapeake Bay, and we resolved that; and they're putting up over $1 million to move forward and actually put that in place. I think the Corps of Engineers is fully committed to work with us on the bay.

We have done—and they have done—some limited work on bank erosion and other erosion issues around the bay. It has been a very small part of the bay effort, but I don't believe they're backing away from their commitments on the bay.

Senator **Warner**. Well, the Governor of Virginia, Governor Baliles, has, I think, taken a very responsible and active role in terms not only of our State legislation, but in a leadership capacity on this issue. And with that background, do you believe the memorandum of understanding between the EPA and the various agencies of the Government needs to be reviewed or strengthened? And what about as it relates to the States?

Mr. THOMAS. Well, I think we are at a point where that's something that needs to be done, and I've had discussions both with Governor Baliles and Governor Schaffer concerning that, and representatives of the Governor of Pennsylvania. We are in a process now, through the staff and the executive group of the Chesapeake Bay, of looking at a revision to the Chesapeake Bay agreement to become somewhat more specific as far as exactly what action is needed and where, by what unit of government, as we look to reduce loadings to the bay in various places of various contaminants. I think we are at a point where there is general agreement that we need to revise and strengthen, with some more specificity, the understanding that we have.

Senator WARNER. One specific question on the pollutant issue there in the Chesapeake. Senator Trible, my colleague from Virginia, has taken a leadership role in legislation on the TBT paint issue. You are familiar with his draft bill?

Mr. THOMAS. I am familiar with the action he's taken up to this point, the major impact as far as that issue is concerned with military and with us.

Senator WARNER. And you are of the opinion that the Congress should help to resolve that issue now?

Mr. THOMAS. Senator, I think we're in the process of resolving it through our regulatory authority. I'd have to look at Senator Trible's bill to determine exactly how that measures. We have a full data review underway right now on Tributyl 10 and its use as a bottom hull paint. As a matter of fact, a good bit of the research is being supported by the Navy, as well as our own program. We're doing it under our pesticide authorities, and we think that in the spring of this year we're going to be at a point where we have to make decisions on it.

Senator WARNER. Well, that was one of the major considerations for Mr. Trible, and I join him for this effort.

We've heard that it may take up to, perhaps, three years before the regulatory process could grind out a solution. And I'm not so sure the environment can wait for that three-year period.

Mr. THOMAS. I share with you the concern about timing. We feel that over the course of the spring and the summer we're going to have information to begin making decisions concerning that particular contaminant.

Senator WARNER. The progress that has been made in the Great Lakes area in some respects provides a pilot and a guidepost for what we're endeavoring to do in the Chesapeake Bay. What level of funding is the agency requesting for the Great Lakes research program in 1988?

Mr. THOMAS. The overall level of funding is about the same as in the past. Our Great Lakes program office is nearly $5 million. Our Grosse Ile Laboratory, which is a primary laboratory for research on the Great Lakes throughout, $2 million and eight personnel, which is the same as the enacted level that we got from Congress last year. Congress added money for that last year, and we've maintained that in our 1988 budget.

I would agree with you about the application of the experience in the Great Lakes to Chesapeake, and I have explored that and discussed it with the governors of the States around the Chesapeake, and we've actually had our Great Lakes program office director come down and have briefings for the staff people of various States on exactly how we've done on Great Lakes. It's that level of specificity that we have gotten to in Great Lakes, where we have specific pollutants, specific loading targets, that I think we need to get to in Chesapeake. And I think there's general agreement that's where we need to go.

Senator WARNER. Do you anticipate that you'll recommend to the President for fiscal year 1989 another $10 million for the Chesapeake Bay program?

Mr. THOMAS. Senator, we're looking at that now. I anticipate that our job is not going to be finished, Federal, State or local, with Chesapeake before fiscal year 1989, or probably a good while after that. So I think that we probably will be looking at funding in that year.

Senator WARNER. My last question, Mr. Chairman relates to the Superfund program. I see the distinguished chairman of the subcommittee, and I shall serve as his ranking associate on that committee.

What guidance would you give to the chairman and myself as we begin our oversight on Superfund?

Mr. THOMAS. Senator, I had a——

Senator WARNER. You're sworn to tell the truth here, now.

If this has been covered, Mr. Chairman——

Senator LAUTENBERG [assuming chair]. No, it has not been covered. I'm very interested in the answer.

Mr. THOMAS. I would say that——

Senator WARNER. I didn't wish to preempt my chairman.

Senator LAUTENBERG. Not at all. Not at all. It's good, coming from that side of the aisle.

Senator WARNER. All right.

Mr. THOMAS. I would say, explore with us our implementation strategy, as well as with other agencies. I think that the bill is a comprehensive bill, authorizing a number of activities. We need to continue a high priority on actual site cleanup, but I also think that we have to implement the other provisions of that law. We've got to talk together on how we're doing that; so whether it's Title III, whether it's research and development provisions, or whether it is the direct site cleanup and how we're going forward with things like cleanup standards and meeting mandatory schedules, I think there is a richness in that bill for oversight, probably unsurpassed in most of the bills you have.

Senator WARNER. That last reference was to the funding profile?

Mr. THOMAS. That, as well as the substance.

Senator WARNER. So we're not as fiscally constrained in this area as we might be in other areas of Government activity?

Mr. THOMAS. Not nearly as constrained, although I think the Senator from New Jersey thinks maybe I've been constrained on it already.

Senator WARNER. Well, I'll try and add a little balancing and leavening to this issue, but I look forward to working with my——

Senator LAUTENBERG. Leavening or levity?

Senator WARNER. I'll do my best in that area, also. But I'm a newcomer to the "Tree-Hugger Society," and I've got to go along rather slowly.

Mr. THOMAS. Thank you, Senator.

Senator LAUTENBERG. Thank you, Senator. That was quite a provocative question. I want you to know, Senator Warner, that Mr. Thomas provided much of the resource that developed the richness of the Superfund bill; and while I can't say he was always enthusiastic, he was always thoughtful and always cooperative. We are anxious to see that cooperative spirit continue in the second phase of this. Little did Mr. Thomas realize, nor I, that, as we worked together I would have responsibility for oversight on Superfund, and I'm sure that would not have changed the relationship in any way. It may change it now, but we hope not.

Back to the right to know issue, a question on where the funds are coming from. I understand that while I was out, that there was some discussion on it, Lee, and I don't want to be repetitive; but I would like to know whether there was a specific recommendation as to where this funding might come from.

Mr. THOMAS. Senator, we've requested the funding for 1987 and 1988 in the budget out of the Superfund account.

Senator LAUTENBERG. Out of Superfund? Do you remember, during the conference on Superfund, that there was a question as to whether or not that funding ought to be separated from the Superfund program? I think there is still honest debate about where these funds are going to come from. Is it possible that we're going to shortcut the program that we have in front of us because someone could challenge the fact that these funds are not appropriately available from Superfund?

Mr. THOMAS. Well, I think we need to resolve the issue as soon as we can. I agree with you, there is honest debate about where the funds ought to come from. What I have communicated to the Appropriations Committees as well as the oversight committees, is that I've got an opinion; I've incorporated it into the budget. If Congress doesn't agree with that, let's discuss it and go forward with it some other way.

The important thing is implementation of that section of the law, and we're moving forward with implementation. So we really do need to resolve it quickly.

Senator LAUTENBERG. Where are we on the implementation schedule or benchmark?

Mr. THOMAS. We've met the schedules that were incorporated up to this point. As a matter of fact, we have a major effort underway in the agency on both parts of Title III, the emergency preparedness work, building on what we had put in place voluntarily over the last year, working with State and local governments to put the emergency preparedness capability in place. I was at a symposium just this week on prevention of chemical accidents that we were cosponsoring with the American Association of Chemical Engineers. We have tried to work with the private sector, as well. But we've got a lot of work underway there, between us, the Federal Emergency Management Agency, and others.

On the information collection side, which were the new provisions, the ones that you authored on community right to know, we have moved forward with both revisions to the List of 400 as a first step; we've moved forward a proposal for the form that will be used for the MSDS inventory that will have to be submitted. We've met the deadlines that were in the statute, and we're taking comment on that proposal—on the form, for instance—now. But I think we're proceeding on both sides of it aggressively, consistent with the direction that you gave us in the law.

Senator LAUTENBERG. What would you think is a reasonable timetable to know that we've got the package that we've assembled, that we're ready to set up a structure with the States and the response agencies, that has a functioning basis on a regular program?

Mr. THOMAS. Over the summer, I think we're going to be in a much better position to talk to you about it.

I will say, Senator, that there is tremendous concern on the part of State government, particularly, but local government as well, about the reporting requirements. They are very concerned about their ability to organize in time to receive the significant amount of information, to analyze that information, to provide it to the public to utilize it effectively. We're trying to work with them to develop package information systems that could be transferred as we develop our own information system. So we've got an interactive process with the States fully involved with us, but there's a tremendous amount of concern on the part of State and local government. In States unlike your own, for instance, which has done an awful lot of work already in this area before this law, there's a lot of concern about being prepared. Can they get prepared in time to fully respond to the kind of requirements that the law has? We're trying to work closely with them.

But I would say, over the summer—at any point, if you want a status report, we can do that on where we are with implementation. But I think we'll probably be in a better position to talk about status the first part of the summer.

Senator LAUTENBERG. On the radon subject, the implementation report was due February 1, and it's not quite ready. When was it suggested that it would be ready?

Mr. THOMAS. We are submitting an overall research plan on indoor air and radon to Congress, and we have communicated the fact that we want to try to do that in two phases. The first phase lays out the overall direction, policy direction, coordination requirements for both of those. The second one lays out the more detailed strategy. The first phase, we hope to get up here to you in the next few days; the second, we hope to get up here to you in April.

Senator LAUTENBERG. Was the target date unrealistic?

Mr. THOMAS. Yes, sir, for the amount of work we had to put into that report and have it reviewed the way we want it. For instance, we've had the Science Advisory Board review fully our indoor air program and our radon program. We wanted to incorporate that panel's review into this report that we submit to you.

[The following additional information was subsequently supplied:]

RADON RESEARCH REPORTS

The Superfund Amendments and Reauthorization Act of 1986 (SARA) require EPA to submit two separate reports to Congress regarding radon.

In his response to Senator Lautenberg's question Administrator Lee Thomas is referring to the report required under title IV of SARA. This report will lay out the Agency's implementation plan for the radon gas and indoor air quality research program to be established under title IV. The first phase of this implementation plan is expected to be presented to Congress sometime in early March. The second phase should be completed and submitted to Congress by the end of April.

The other radon report, and the one Senator Lautenberg may be referring to, is required by section 118(k) in title I of SARA. This report is to be submitted by February 1 of each year (beginning February 1, 1987) and will provide to the Congress the status of the Agency's Radon Mitigation Demonstration program. The Agency expects to submit its first report to Congress in March.

Senator LAUTENBERG. EPA started its demonstration project in Clinton, New Jersey, and I'd like to just inquire about the status of that program.

Mr. THOMAS. Jim, do you know the status?

Mr. BARNES. I think, Senator, we've pretty well worked through the ten homes there; in fact, the other day I received a highly complimentary letter from the Mayor of Clinton, complimenting our research official who has played the lead there, feeling that he had been very helpful in working through on those homes. I think in addition to the ten that we were doing direct mitigation work on, we had a number of others that we are consulting on in terms of helping assess what the origin of the radon coming into the home is, and in preparing some mitigation strategy for those homes. But my understanding is, I think we're well into it now. Obviously, we do have to keep monitoring the work that has been done on those homes to see that the reductions in levels that have been achieved maintain themselves over a period of time, and we're particularly concerned during the winter months where we have a tight air exchange of radon rates within the homes.

Senator LAUTENBERG. But much of the review is taking place during these months?

Mr. BARNES. That's correct. We'd be glad to get you a short note with an update on that, if that would be helpful.

Senator LAUTENBERG. What I'm concerned about is whether or not we are providing the funds to complete the work. How much more needs to be done? Is it just a matter of working through the time cycle?

Mr. THOMAS. I think we've accomplished what we indicated we were going to do on the ten homes. What we've tried to do in a number of these sites—and we went to New Jersey, as you know, and Pennsylvania—was to do a number of homes in a number of different locations, and use that information, then—make it available to homeowners, largely through the State, for all the thousands of homes out there that need work done on them. Ours was a program to actually look at various techniques. We've incorporated that into our homeowner's guide for construction.

The monitoring that's going to be done is a part of our ongoing program to determine whether new techniques in new locations should be added to that homeowner's guide.

[The additional information referred to follows:]

RADON MITIGATION—CLINTON, NEW JERSEY

Residents of Clinton, New Jersey reported very high radon levels in their homes to the New Jersey Department of Environmental Protection (NJDEP) in March 1986. The NJDEP requested the assistance of the EPA through its radon mitigation research program. Within twenty-four hours, EPA personnel began an intensive field examination of the extent and nature of the problem.

EPA agreed to do a radon mitigation demonstration project in Clinton that would include testing radon reduction techniques in up to ten (10) houses and diagnosing the radon problems and developing possible mitigation approaches for up to an additional twenty (20) houses. All the homes would have to fall within EPA's research test criteria (e.g., initial radon level, house substructure type, house design details and likely mitigation techniques). In addition, EPA would select the twenty houses for evaluation so that they would have construction features common to other affected homes in Clinton.

EPA and its contractor worked closely with NJDEP personnel and the Mayor of Clinton throughout the summer and fall of 1986 to carry out the demonstration project. All ten of the houses selected for mitigation had initial radon levels that exceeded 400 picocuries per liter (pCi/1); four of the ten houses were over 1000 pCi/1. As of December 1986, all ten houses were reduced to less than 10 pCi/1 and half (including the two with the highest levels) were reduced to less than the EPA guidance level of 4 pCi/1. Percentage reductions of radon in all ten houses exceeded 98 percent.

During the course of this project, EPA, in conjunction with NJDEP and the Mayor of Clinton, held five town meetings to discuss the research project and its findings with the community. The 20 house evaluations were given to the participating homeowners. All 30 evaluations (with the names removed) were made available to any interested Clinton homeowner. These latter homeowners were also given an opportunity to discuss their individual problems privately with EPA mitigation experts. As a result of the information provided by EPA, a number of homeowners have successfully mitigated their own homes. In December 1986, at a news conference arranged by State and local officials, the results of this EPA radon mitigation research demonstration project were released to the public at large.

The real test of any radon mitigation approach in a home comes in the winter months when the driving forces are greatest for radon entry into the home. EPA expended its 1986 budget of approximately $170,000 in carrying out the Clinton demonstration project. EPA has budgeted an additional approximately $20,000 in 1987 funds to monitor performance during the winter of 1986–1987 and to make any minor adjustments in the installed mitigation systems that could improve their performance. As with all its radon demonstration projects, EPA plans to continue follow-up monitoring for at least two years.

Senator LAUTENBERG. Thank you.

Senator MITCHELL [resuming chair]. Thank you.

Mr. Thomas, in 1986 Congress reauthorized the Superfund at a funding level of $8.5 billion over five years. Of that amount, $1 billion was to come from general revenues. In your budget request that you are now presenting to us, you have not requested any funding from general revenues. Is it your intention to request the full amount authorized by Congress, or do you intend to operate it at a $7.5 billion level over five years?

Mr. THOMAS. Senator, as I indicated earlier, we are going to try to do as much work as we can manage over the next five years at cleaning up Superfund sites. How much it's going to cost us is still an estimate in my opinion, and I've estimated $7.5 billion to $9 billion over that five-year period of time. If we don't need the full amount of the general revenues that were authorized, we will not request it; we will try to use the other revenue first. If we need the general revenue to do the work, we will request it.

Senator MITCHELL. I'd like to ask about air for a moment. Your request in this budget for section 105 grants to States under the Clean Air Act is for $95 million; that's the same as the 1987 amount. Do you believe that this amount is sufficient for States to adequately fulfill their obligations under the Clean Air Act?

Mr. Thomas. I think it is, Senator.

Senator Mitchell. All right.

The EPA budget justifications mention some State activities supported by section 105 grants, including ambient air quality monitoring, development of data bases, and baseline inventories. Do these activities rely on air quality monitors?

Mr. Thomas. I'm not sure. The monitoring, obviously, requires air quality monitors.

Senator Mitchell. Well, the next question is, are not monitors necessary to develop data for regulatory and compliance decisions?

Mr. Thomas. They are.

Senator Mitchell. All right. Then I would like to have you look into the fact, and report to the committee, on the problem that some States are having to shut down monitors because they deem the section 105 grants insufficient. I'd like to have you give us a report on that; we've heard from some State agencies who have reported that they've had to shut them down, and I'd like to have you tell us what steps you're taking to assure adequate monitoring is going to continue.

Mr. Thomas. I'll certainly do that, sir.

[The information requested follows:]

Section 105 Grants for Air Quality Monitors

The Agency recognizes that section 105 grants are limited, thus making it difficult to support all air monitoring programs of state and local agencies through Federal funds alone. Nationally, the section 105 grants support about 40 percent of the cost of agency programs with State and local governments supplying the remaining funds. Presently, state and local agencies operate about 4600 ambient air monitoring stations for those pollutants for which there are national ambient air quality standards. Because of new national priorities (PM_{10} monitoring, increased ozone, nitrogen oxides and organic compound monitoring) the Agency has identified categories of lower priority air monitoring stations that are candidates for this investment. Stations suggested for termination are those that over the last few years were measuring air quality concentrations that were less than 50 percent of the national ambient air quality standards.

Review and evaluation of State air monitoring networks to eliminate any necessary stations or to correct any inadequacies has been a requirement of EPA's Air Monitoring Surveillance Regulations since their promulgations in 1979. Such reviews are done annually as a cooperative effort between the EPA Regional Offices and the states to ensure that the networks meet changing needs and monitoring objectives. When resources for addressing new priorities and continuing existing programs are a problem, the Regions, states, and local agencies try to work out an optimum network with the resources available.

As an example, EPA in 1985 supplied 662 PM_{10} samplers to state and local agencies to respond to a critical need for PM_{10} ambient air quality data. Also, in 1986 EPA allocated $2 million in section 105 grant funds for the replacement of worn-out ambient carbon monoxide and ozone monitors. To continue implementation of the state and local PM_{10} networks, the Agency allocated $400,000 of the 1986 grant funds for procurment of additional PM_{10} samplers as a "High National Priority Activity." During 1987 the Agency's guidance calls for grantee agencies to continue to procure PM_{10} equipment where needs have been identified. For 1988, the Agency proposes to again allocate funds for PM_{10} samplers as a "High National Priority Activity" and to direct all grantees to also consider the redistribution of existing PM_{10} monitors from areas with relatively clean air as a means of addressing their total PM_{10} network requirements.

Senator Mitchell. I think it's very important from your standpoint and ours.

On the clean water, you indicated earlier that you were going to do an assessment of what is required. Do you now have any indication as to when that assessment might be complete?

Mr. THOMAS. Larry Jensen, who is my Assistant Administrator for Water, has indicated that he thought we would have that complete at the end of March.

Senator MITCHELL. The end of March? Well, we look forward to that.

We had a hearing on air pollution—we're going to have some future hearings—and I want to make sure that you will agree to appear before our subcommittee. I understand that you had refused to appear on the global warming hearing because it was a subcommittee hearing.

Mr. THOMAS. Senator, I have never refused to appear before a subcommittee, and never will.

Senator MITCHELL. Okay. That's great.

Mr. THOMAS. And I didn't on that one.

Senator MITCHELL. Is that right?

Mr. THOMAS. No. I didn't even know there was an issue until I heard about it, when you had the hearing.

Senator MITCHELL. All right. Then it's obviously a——

Mr. THOMAS. It must have been a miscommunication. I'm sorry about it.

Senator MITCHELL. Well, there's no need for you to apologize; it could be our error, as well. I just wanted to make sure of that because we're going to be doing a lot of work.

Mr. THOMAS. I understand. Obviously you understand, Senator, with the number of subcommittees that are responsible for our agency—we have in excess of 50 of them—we try to ensure that I can get to as many as possible to deal with the primary issues, and there has to be some juggling to deal with that.

Senator MITCHELL. Well, we're very mindful of the difficult job you have and the time demands on you, and I assure you—I think I can speak for the other subcommittee chairmen, although I have not discussed it with them—that we will try to be very careful and not make unnecessary demands upon your time.

Mr. THOMAS. Thank you, Senator, and you all always have.

Senator MITCHELL. But as you well know, it's to your advantage to come up here because you have—the respect of members of this committee. And if your report is made available at an early stage of the proceedings, you're more likely to be able to influence the result.

I just want to say in conclusion that—I've said this to you many times—I hope you didn't take anything out of my earlier questioning in a personal way. I spent many years as a trial lawyer and have had to argue more lousy cases than you have, so I appreciate the difficulty. I think you do a very good job at presenting your view. That's the real skill; anybody can argue a good case.

The real test is when you come up here with such a lousy case and do such a good job arguing it, and I commend you for that. And I meant what I said about the regard this committee has for you, and we look forward to working with you in the future.

Mr. THOMAS. Thank you, Senator.

Senator MITCHELL. I've got to leave. I do have a number of other questions on other subjects that I will submit in writing, and I appreciate your response at the earliest time.

Senator Lautenberg?

Senator LAUTENBERG [assuming chair]. Lee, if you have just a few minutes, I'll ask the searching questions that Senator Mitchell did not want to suggest, or were too personal, or whatever.

Mr. THOMAS. Fine.

Senator LAUTENBERG. Thank you very much.

Just briefly, a couple of things that I wanted to make sure the record reflects in terms of my interest and your response.

You have been now addressing the cleanup standards implementation, and have been working—I guess—on a draft of the interpretation of the cleanup standards rules as they are in the law. EPA has applied these new standards, however, to a site in Region 1 in New Hampshire. The agency apparently has concluded that the most stringent drinking water standards need not or do not apply, and the agency reportedly made this decision despite the region's proposal to the contrary. Do you have any response to that?

Mr. THOMAS. Yes, sir. That's not exactly the way it happened. You're talking about the Ottai and Goss site, which is a site that requires ground water cleanup. We have applied the law. The law talks about using maximum contaminant limit goals under the Safe Drinking Water Act, where they are applicable, relevant, and appropriate. "Relevant or appropriate" clearly is an important issue here. I don't even think we got to that point of having to make that decision in this case.

I can tell you, in most of these Superfund sites there is absolutely no way we will be able to reach a maximum contaminant limit goal, nor should we try. In many cases, that is zero; it is a health-based goal under the Drinking Water Act. It doesn't have anything to do with the water you drink; you drink a water that meets the maximum contaminant limit. In many cases, it will not be relevant and appropriate for us to try to clean up that ground water cleaner than the water that you're drinking. That's the issue that we're struggling through. We want to have full discussion with you. It was an issue we discussed at length as we went through reauthorization. I can assure you, we're going forward to implement it the way you and I talked about it.

Senator LAUTENBERG. What was the difference in view?

Mr. THOMAS. I don't think there was a real difference in view as far as the end result was concerned. We were going through an interpretation of that law, what we were supposed to do and what we were not supposed to do. If people had been reading the "Inside EPA" articles about it, they are not accurate.

Senator LAUTENBERG. One of the things that we would be concerned about is whether or not we're seeing an attempt to reduce costs.

Mr. THOMAS. Actually, it has nothing to do with costs. It has to do with whether you should try to reach one goal versus another in cleanup based on public health and environmental risk. It has to do with whether you can reach that goal or not based on technology.

Senator LAUTENBERG. It does have a cost identification, even if that was not the admission.

Mr. THOMAS. Certainly.

Senator LAUTENBERG. Let me ask you about the facility that we have in Edison. I worked last year to appropriate funds for a joint research effort between EPA and some of the New Jersey universities. The measure provided $500,000 for renovation of a facility adjacent to EPA's Edison, New Jersey lab. These facilities are going to conduct some important hazardous waste research, and I'm concerned about the rescission that was developed there. Why, after we worked so hard and we agreed, I assume we agreed, that that hazardous waste research was necessary, what's the rationale for rescinding it?

Mr. THOMAS. Well, actually, Senator, under the Superfund budget for this year in the R&D section, we're planning on putting over $5 million into the Edison facility to upgrade that facility—I think consistent with what your thoughts were—to be a major research facility for hazardous waste technology development. But that's out of the Superfund account.

Senator LAUTENBERG. But will those monies be limited for use in Superfund research?

Mr. THOMAS. Well, that's an overall hazardous waste research facility. It has largely been directed towards the kind of hazardous waste work we do on the Superfund, but as you know, that's very broad. This, really, we want to see as a major site for technology development in hazardous waste treatment and disposal. But we would be pleased to really go through and give you a detailed review on that facility, if you'd like, the plans for it.

Senator LAUTENBERG. We'd like to know that they're not limited; if the mission is hazardous waste research, we want them to be able to go where they have to in order to do the research.

Mr. THOMAS. Why don't we have our staff sit down with yours and review the plan for that facility?

Senator LAUTENBERG. Okay.

EPA assumes ocean disposal fees in its budget, subject to issuing regulations. When can we expect those regulations to be issued?

Mr. THOMAS. I think we're on schedule for this year. We laid out a proposal on fees last year that included ocean disposal and included pesticides and some others. We've proposed the pesticide fees; they're out for comment now. We have scheduled the proposal of the ocean disposal fees with the Ocean Disposal Regulations in April, 1987.

[The following was subsequently supplied:]

STATUS OF PESTICIDE FEE PROPOSAL

The comment period for the pesticides fee Notice of Proposed Rulemaking (NPRM) is nearing completion. These comments must then be analyzed in detail before a final rule can be promulgated. The Agency hopes to begin fee collection for this program during the last quarter of 1987.

Senator LAUTENBERG. What kind of fees is the agency considering?

Mr. THOMAS. Well, it's a limited amount of money under this particular one. It has to do with a fee that would be relatively small in the total amount of money that would be raised because of the limited amount of ocean disposal that we regulate compared to, say, pesticides. But it would be for the people who are disposing of material under our regulatory program, to actually pay a fee that would help support that regulatory program.

Senator **Lautenberg**. How about the ocean incineration regulations? When do you expect the agency to issue its regulation?

Mr. **Thomas**. There are two parts of the ocean incineration regulation, one dealing with site designations where we are designating sites for burns, and the second is the major part of the regulation itself. We intend to go forward with the site designation portion of the regulation, but based on our analysis of the hearing officer's report and other information, we're going to provide some additional information for public review, on the overall regulation in the late spring before we go final with those regulations.

On the site designation part, we feel we're going to be able to move forward with site designation probably in the same kind of time frame. We're working on finalizing site designation in the North Atlantic. We're looking at South Atlantic. We're looking at a review of the existing site in the Gulf, and we're looking at a site off the Pacific. Obviously, no burning could be done at any of those sites, even if they were designated, until a full regulatory program was in place.

Senator **Lautenberg**. And you're still soliciting comments?

Mr. **Thomas**. We're going to go out on a re-proposal on the overall regulations probably in the late spring, incorporating some new issues that we think need to be embodied in those regulations.

Senator **Lautenberg**. I've got one last thing and then we'll adjourn this hearing.

Having to do with RCRA, when it was finally reported last spring that the agency would not meet about a third of its RCRA deadlines—and at that time cited insufficient budget and personnel available——

Mr. **Porter**. I'm not sure that's quite correct.

Mr. **Thomas**. It's still about a third, maybe a little less. I would say, though, that in all of the most important regulatory provisions in RCRA, we are meeting the schedule we've laid out. We've either met the schedule or are meeting it. These are what I would consider less important. Technically there's no way we can get the information to put the regulation out in time.

Senator **Lautenberg**. Well, the problem that we have, you've got to issue disposal permits by November of 1988——

Mr. **Thomas**. We think we're going to come close to that.

Senator **Lautenberg** [continuing]. Because to date so few of them, in New Jersey only 2 percent, have been permitted, and——

Mr. **Thomas**. Actually, they're going out pretty fast now. I saw that last quarter our people doubled the target that we had set for them on land disposal permits. So they're moving through the process.

Senator **Lautenberg**. Lee, thank you very much. I appreciate you and your staff being here with us. And as usual, if we disagree, it's a forthright discussion with great respect.

I do want to say that we will have questions for EPA that we want to submit. And thank you again for being here with us.

I have a statement from Senator Pressler that I will put in the record.

[Senator Pressler's statement follows:]

OPENING STATEMENT OF HON. LARRY PRESSLER, U.S. SENATOR FROM THE STATE OF SOUTH DAKOTA

Mr. Chairman I want to thank the chairman for scheduling these hearings on the Environmental Protection Agencies budget request. A careful examination of the EPA budget is particularly important this year because of the several changes in environmental programs adopted last year.

Funding and implementation of programs to keep our environment clean affects all Americans. In reviewing the EPA budget request we must keep in mind that a small amount of money spent today to prevent pollution may well save billions of dollars in the future. Preventative actions will not only save money for future environmental cleanup programs but also reduce the cost of medical expenses and building and infrastructure maintenance cost. It is important that the many critical environmental programs are adequately funded.

My home state of South Dakota, like all states, has a particular interest in many of the environmental programs. Of special concern is funding for the sewage treatment plant construction program. This program is critical for small rural communities. The states also benefit from numerous other EPA state grant programs. Adequate funding is critical if these programs are to be effective.

Funding of the leaking underground storage tank programs and safe drinking water programs are also of great concern. I have always placed a high priority on providing good quality water to all Americans. Fortunately, South Dakota does not have the water pollution problems other areas have. Unfortunately, the ground water in many areas of South Dakota is of very poor quality. The groundwater in many areas in South Dakota exceeds the recommended EPA limit for dissolved solids. High levels of sodium, sulfate and iron are common in the groundwater. I believe these areas of naturally poor water should be given the same attention as areas where human-made pollution has created similar problems.

Again, I commend the chairman for calling these hearings and I look forward to hearing Mr. Thomas' comments.

[Whereupon, at 12:06 p.m., the committee was adjourned.]

[Mr. Thomas' statement and responses to additional questions follow:]

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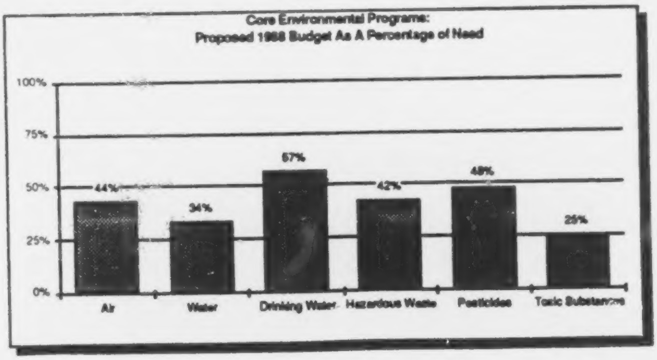
EPA'S BORN AGAIN 1976 BUDGET
The Administration's Proposed 1988 Budget
January 5, 1987

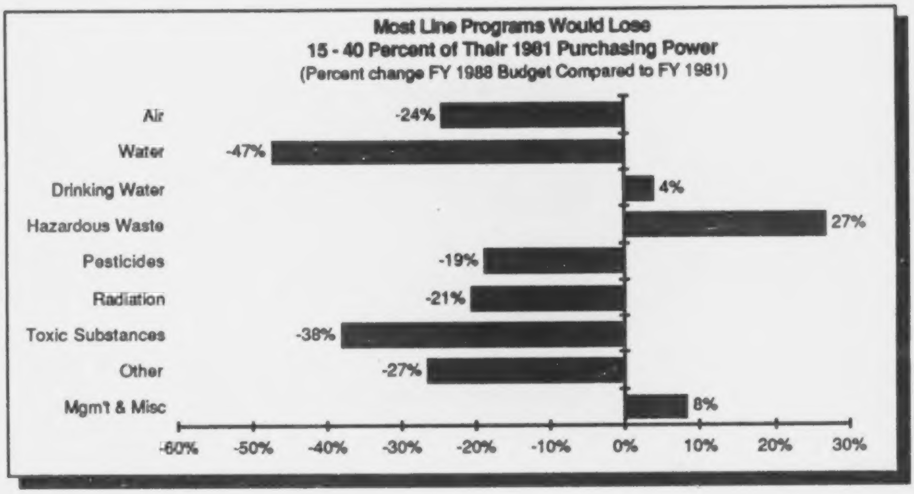
The Administration's proposed 1988 budget for EPA continues stuck where it has been for five years -- deeply cut, leaving the Agency unable to do the job assigned it.

Correcting for inflation, this budget would provide EPA almost exactly the same purchasing power it had in 1976, twelve years before. That was before the country put in place the laws requiring EPA to protect the public from toxic substances; hazardous wastes; toxics in the air and water and drinking water; etc. EPA's pre-existing work has not been reduced: as acid rain suggests, controlling NOx and Sulfur is still important; and the number of those requiring regulation grows with the economy. The result of thus doubling EPA's work (literally) while at the same time sharply cutting its resources is that the Agency is failing to protect the public either from toxics or from "conventional" pollutants.

Using the most conservative assumptions, including stretching out the start-up of new work as long as credibility permits, the President's proposed budget would leave only one EPA line program with more than half the resources it needs to get its job done in 1988, the drinking water program (57 per cent).



(On request Environmental Safety will send its full analysis of these workload reality/ resource -- and therefore protection -- gaps.)



Most Line Programs Would Lose
15 - 40 Percent of Their 1981 Purchasing Power
(Percent change FY 1988 Budget Compared to FY 1981)

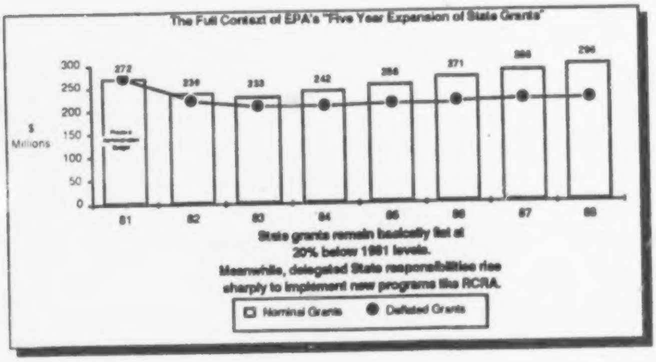
Comment: The increase for hazardous wastes is from a modest pre-implementation planning base. It comes after cuts from this base in the early 1980s that left those subject to the law believing that it was an unenforced law, a belief that ensured mass noncompliance, which in turn multiplied government's work (a factor ignored in the needs calculated above). The 1984 amendments to the hazardous waste law (RCRA) required a 90% increase in EPA's purchasing power in FY 1986 over FY 1981 levels, according to the EPA program offices. The President's FY 1988 budget proposal would cut this program's purchasing power 4% compared to FY 1987's appropriation, reversing the more hopeful trend immediately following the 1984 Amendments. (See Environmental Safety, EPA's Real Needs, January 5, 1987, available on request.)

See the text for commentary on the drinking water increase.

As the sharp decline in the 1980s in business investment in pollution abatement from the plateau of 1973-1980 -- just when all the new toxics laws should have been driving it up — makes clear, by destroying EPA's credibility these budgets have also destroyed businessmen's confidence in environmental regulation. They, correctly, believe that their competitors are not being made to comply. Despite their increased liability risks, this loss of confidence has meant that the country has lost much of the voluntary compliance without which the promises of the laws mean little. One government study after another confirms this sweeping loss of compliance.

Despite major, recently enacted new hazardous waste and safe drinking water requirements, this proposed 1988 budget would again chip away at EPA's core operating programs, reducing both purchasing power and people, compared even to this year's unrealistic levels. It is another step in the cannibalization of EPA's protective programs: compared to FY 1981, it would bring real purchasing power losses to air of 24 percent, water 47 percent, pesticides 19 percent, radiation 21 percent, and toxic substances control 38 percent. Noise reduction is only a memory. Even hazardous wastes, which grew from a tiny base over the last several years, would lose four percent of its resources in this budget. (See page 2.)

As the number of laws, pollutants, and those subject to regulation have multiplied; as the Federal government's philosophy and incapacity both have forced it to shift more of its work; as Federal technical and compliance support has declined; and as voluntary compliance has plummeted, the states' workload has far more than doubled in the 1980s. For example, a review of the state programs responsible for implementing the country's hazardous waste laws found them 70 percent understaffed. And this survey was completed just before Congress multiplied the work facing these already far overstretched men and women by adding over a million new regulatees and sharply increasing the stringency and scope of the law. EPA grants traditionally paid for almost half the state/local effort. However, these grants have declined 20 per cent since 1981.



History of the EPA Operating Budget: 1981-1988

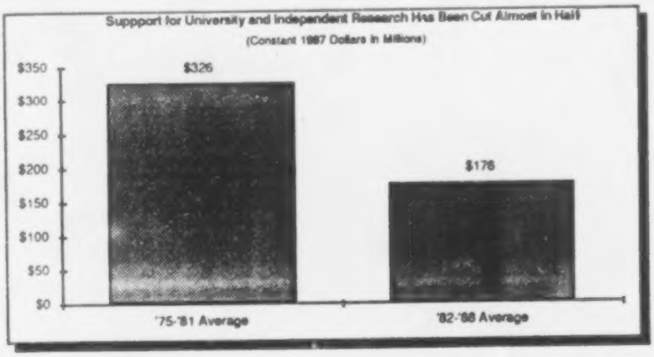
	FY 1981 APP.		FY 1982 ACT.		FY 1983 APP.		FY 1984 APP.		FY 1985 APP.		FY 1986 APP.		FY 1987 APP.		FY 1988 PROPOSED	
	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $
Operating Budget	**1,351**	**1,351**	**1,137**	**1,061**	**1,040**	**933**	**1,115**	**964**	**1,348**	**1,127**	**1,490**	**1,197**	**1,493**	**1,159**	**1,489**	**1,111**
Air	245	245	230	214	212	190	226	195	241	202	245	197	246	191	248	185
Water	334	334	251	234	216	194	218	188	255	213	243	195	239	185	236	176
Drinking Water	83	83	86	80	78	70	79	68	90	75	87	70	105	81	116	86
Hazardous Waste	151	151	111	103	117	105	131	113	164	137	234	188	258	200	257	192
Pesticides	69	69	58	54	53	47	59	51	69	58	67	54	69	54	75	56
Radiation	13	13	12	11	11	10	12	10	12	10	11	9	15	12	14	10
Toxic Substances	103	103	83	77	70	63	69	60	84	70	136	109	139	108	86	64
Other	119	119	83	77	49	44	77	67	113	94	68	55	114	88	117	87
Mgm't and Misc.	234	234	225	210	235	210	244	211	280	234	287	231	308	239	340	254
State Grants*	272	272	239	223	233	209	242	209	256	214	271	218	286	222	296	221

* State grants are included within the media programs (air, water, etc.) totals given above. We have broken them out separately because of their importance to implementation.

NOTE: Constant dollar evaluations are expressed in 1981 dollars, calculated using CBO deflators.

Research is what ultimately drives the environmental field. What the researchers are (are not) doing now will determine to a very large degree what we can (won't be able to) do in the 1990s. As then-Counselor Meese reportedly commented in an early Reagan White House budget discussion: Once researchers come up with and make the public aware of a new environmental worry, it's probably too late to avoid new regulation. The researchers are the environmental genies.

That's apparently one reason support for university and other independent researchers has been cut twice as severely as the state agencies:



Another reason is that it has been easier and less visible to cut independent researchers than civil servants (whose smaller inside research budget is down "only" roughly one eighth.) Reopening these lost laboratories and recruiting new graduate students and faculty will be a long, slow, expensive process.

There is some progress. The Congress has forced significant increases in Superfund; and it looks as if it will soon, reversing the President's veto, do the same for EPA's other [illegible] program, wastewater treatment construction grants. (See page 6.)

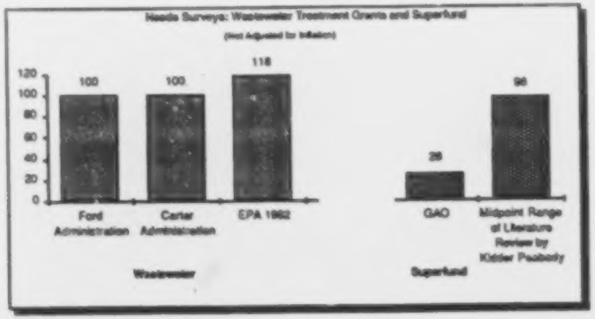
The President's budget seems to take a small step forward in the area of indoor pollution; it has refrained from again attempting to zero out the effort to evaluate the risks where Americans after all spend most of their time, inside. (Hitherto largely unmeasured and unsafeguarded, the evidence gathered so far shows risk levels far exceeding those found outside. The sources of the pollution range from certain types of building and furniture materials through pesticides and the mass of household chemical conveniences to pipes leaching lead into drinking water. We feel that these higher risks and higher exposures make dealing with indoor pollution one of the country's greatest public health opportunities. That's also why the Administration, sensing that the identification of these problems would lead to more regulation, as one of its earliest acts both eliminated EPA's $13 million research program and prohibited one of the program's lead scientists from speaking publicly. A determinedly courageous staff and small Congressional restorations have kept some of the work alive.) However, if the budget seems to recognize the importance, or at least the inevitability, of some

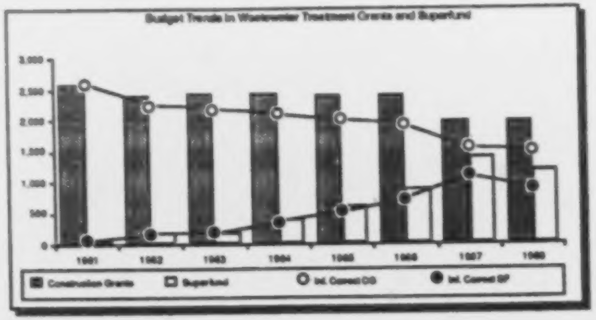
History of the EPA Capital Budget: 1981-1988

	FY 1981 APP.		FY 1982 ACT.		FY 1983 APP.		FY 1984 APP.		FY 1985 APP.		FY 1986 APP.		FY 1987 APP.		FY 1988 PROPOSED	
	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $	Nom $	Const $
Wastewater Grants	2,600	2,600	2,400	2,239	2,430	2,181	2,430	2,101	2,400	2,007	2,400	1,928	2,000	1,552	2,000	1,492
Superfund	74	74	190	177	210	188	410	355	620	518	900	723	1,411	1,095	1,200	895

NOTE: Constant dollar evaluations are expressed in 1981 dollars, calculated using CBO deflators.

NOTE: 1988 Superfund budget does not include $378 M of previously appropriated funds that have not been used and are available for use in 1988.





research, it harshly cuts the few efforts to do anything about these risks. It seeks to cut the program to reduce asbestos risks in schools by $39 million in 1988, more in each of the following two years. It would also cut radon research work roughly in half.

Two areas of especially direct public health risk, pesticides and drinking water, would obtain purchasing power increases respectively of 6 and 4 percent. However, this budget proposal provides a staff increase of only one fifth of one person between the two programs. Given the Administration's policies, this is the best the EPA Administrator could do for his top operating priorities -- two programs notoriously unable to cope with huge, growing, technically very hard jobs. (Staff working on newly enacted deadlines requiring the creation of standards for 80 risky contaminants found in drinking water within three years tell Environmental Safety there is no hope of doing so with these resources.)

Except for management/overhead (where purchasing power would go up 6 per cent), all other major EPA programs would be cut.

Even the most publicly visible programs suffer:

> * Although the President's Budget Message spotlighted acid rain as one of only eleven non-defense areas receiving priority attention nationally, EPA's budget summary (page 37) reports: "In 1988 support for EPA's research on acid rain will remain stable ... Acid Rain research throughout the Federal Government in 1988 will total $86.1 million, essentially the same level as in 1987." Taking inflation into account, acid rain research actually would decline modestly.
>
> * Several EPA staffers have very entrepreneurially and courageously played key roles in helping to get the country to focus on climate and associated atmospheric (e.g. ozone) changes. This budget net cuts support for such work.

There are many other such disappointments. The resources simply aren't there to do the job.

The damage is far greater than the sum of all these particular setbacks.

After two years of radical cuts in 1981-1982, the battle over EPA's resources and therefore its ability to implement the laws has been stalemated ever since. Those seeking to cut have been able to do so only relatively gradually, and the environment's friends have been unable to add (except, ironically, in the far more expensive capital areas, where there is little opposition). The cumulative damage to EPA as an institution, to voluntary compliance, to our knowledge base, and ultimately to the environment of almost a decade of such a hopeless mismatch between resources and reality will take a long, long time to repair.

EPA, struggling with a new field where far more is unknown than has been mapped, used to be characterized by imaginative fire. Some individuals and even groups in the Agency are still exploring, but the institution has lost its prior exploratory verve. Without its lead onto new ground, the country's environmental agenda seems stuck where it was in December 1980, on Superfund and acid rain. The drain of the struggle to preserve, the dominant official perception of new doors as "budget risks" or "regulatory threats," demoralization, and resource starvation have all contributed to this creativity anaemia.

For example, EPA's research has not: explored synergistic effects amongst pollutants; developed the short, reliable tests necessary for screening masses of chemicals for health effects beyond cancer; created reliable and economic air and water monitoring systems for toxics; mounted a systematic review of alternative ways of handling waste streams; or explored tens of other fundamental opportunities and needs. The Agency has also failed to develop and test new methods of ensuring compliance (e.g. variable liability or certified public toxics auditors) despite the now apparently irreversible collapse of the current approach.

Despite many top level EPA speeches on giving priority attention to the areas with the greatest health risk, the more directly EPA's major programs focus on protecting people from toxics, the more derisory their reputation seems. Friends teaching environmental law tell us that their students resist having to spend time studying the Toxics Substances Control Act on the grounds that the law is virtually meaningless. (At the end of 1986 EPA reported that, other than legislatively mandated PCB controls, EPA's TSCA program had so far managed to take action (any action) regarding only 21 of the 65,000 existing chemicals it is supposed to ensure are safe.) Another in the long series of GAO reports chronicling the failures of the hazardous waste program to act should be out in the next week, this time reporting that only 450 of 5000 wastes so far identified as potentially dangerous have been regulated since 1976, only 5 since 1980. Not only has the drinking water program failed similarly to develop standards limiting specific risky contaminants (many regulated in areas where exposure is far less direct) during the 1980s, but it has succeeded in bringing no court to enforce even the limited older standards despite widespread known noncompliance. NRDC lab tests of market fruits and vegetables tell one all one needs to know about the efficacy of the pesticides laws.

It's sad.

Environmental Safety is exploring and in some areas beginning to help test at the state level what might be done in a number of these frontier areas. What should the research program be doing? How might compliance be restored? What might an indoor pollution program look like? Etc. Let us know if you'd like to contribute ideas or otherwise participate.

Yours sincerely,

Bill Drayton

William Drayton
President

James R. Gomes

James Gomes
Vice-President

STATEMENT BY LEE M. THOMAS
ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

FEBRUARY 5, 1987

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE: I APPRECIATE THIS OPPORTUNITY TO DISCUSS THE PRESIDENT'S 1988 BUDGET REQUEST FOR THE ENVIRONMENTAL PROTECTION AGENCY -- A BUDGET THAT PROVIDES GROWTH FOR THE AGENCY TO CONTINUE ADDRESSING THE NATION'S MOST CRITICAL ENVIRONMENTAL PROBLEMS. WITH ME TODAY ARE THE DEPUTY ADMINISTRATOR, A. JAMES BARNES, AND THE ASSISTANT ADMINISTRATORS WHO MANAGE OUR PROGRAMS.

WE BELIEVE THIS BUDGET WILL PROVIDE THE AGENCY WITH THE NECESSARY RESOURCES TO SUCCESSFULLY ACHIEVE OUR STATUTORY OBJECTIVES -- TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT. OUR 1988 REQUEST PROVIDES STRONG SUPPORT FOR NEW REQUIREMENTS AND MAINTAINS OUR BASE PROGRAMS. SPECIFICALLY, WE HAVE BUILT THE PRESIDENT'S 1988 BUDGET AROUND THREE KEY AREAS:

- A MAJOR 2-YEAR REQUEST FOR SUPERFUND TO ALLOW US TO MOVE AHEAD QUICKLY TO MEET THE REQUIREMENTS OF THE NEW LAW.
- IMPLEMENTATION OF THE SPECIAL ENVOYS' REPORT ON ACID RAIN.
- CONTINUED EMPHASIS ON THE SAFE DRINKING WATER ACT, WHICH WAS SIGNED BY THE PRESIDENT LAST YEAR.

WE HAVE ALSO INCREASED FUNDING FOR STATE GRANTS IN 1988 IN ORDER TO CONTINUE THE STRONG STATE-FEDERAL PARTNERSHIP THAT IS CRUCIAL TO ACHIEVING OUR GOALS.

I MIGHT ADD THAT I AM PERSONALLY CONCERNED ABOUT MEETING CONGRESSIONALLY MANDATED DEADLINES. I CAN ASSURE YOU THAT EPA HAS MADE AND WILL CONTINUE TO MAKE EVERY EFFORT TO MEET THESE DEADLINES. I HAVE DEVELOPED THIS BUDGET WITH A VIEW TOWARDS MEETING MANDATED DEADLINES.

OVERVIEW

OUR PROPOSED 1988 BUDGET WILL ALLOW US TO BRING ABOUT SUBSTANTIAL ENVIRONMENTAL PROGRESS OVER THE NEXT SEVERAL YEARS. THE PRESIDENT IS REQUESTING ALMOST $2.7 BILLION SUPPORTED BY 14,323 WORKYEARS. THE REQUEST INCLUDES $1.5 BILLION AND 11,522 WORKYEARS FOR OUR OPERATING PROGRAMS. WE ARE ALSO REQUESTING 2,801 WORKYEARS AND $1.2 BILLION FOR THE SUPERFUND AND LEAKING UNDERGROUND STORAGE TANK PROGRAMS. BY USING PREVIOUSLY APPROPRIATED FUNDS, WE WILL BE CONDUCTING A TOTAL SUPERFUND AND LUST PROGRAM IN EXCESS OF $1.6 BILLION IN 1988. WE WILL SPEND MORE IN 1988 ALONE THAN WE DID DURING THE FIRST 5 YEARS OF THIS PROGRAM. THE ADMINISTRATION WILL BE REEVALUATING ITS REQUEST OF $2 BILLION FOR CONSTRUCTION GRANTS IN LIGHT OF THE RECENT REAUTHORIZATION OF THE CLEAN WATER ACT.

EXCLUDING CONSTRUCTION GRANTS, OUR 1988 REQUEST IS AN INCREASE OF $97 MILLION AND 158 WORKYEARS FROM THE 1987 CURRENT ESTIMATE. THIS IS AN INCREASE OF 4 PERCENT IN DOLLARS AND 1 PERCENT IN PERSONNEL.

THE ADMINISTRATION IS ALSO PROPOSING SOME CHANGES TO THE 1987 BUDGET. THESE PROPOSED CHANGES INCLUDE A TRANSFER OF $22.4 MILLION FROM THE RESEARCH AND DEVELOPMENT AND ABATEMENT, CONTROL, AND COMPLIANCE APPROPRIATIONS TO THE SALARIES AND EXPENSES APPROPRIATION IN ORDER TO PAY FOR ADDITIONAL AGENCY COSTS ATTRIBUTABLE TO THE FEDERAL PAYRAISE AND IMPLEMENTATION OF THE NEW FEDERAL EMPLOYEES RETIREMENT SYSTEM. IN ADDITION, THE ADMINISTRATION IS PROPOSING A $47.5 MILLION RESCISSION TO THE ABATEMENT, CONTROL AND COMPLIANCE APPROPRIATION FOR THE ASBESTOS-IN-SCHOOLS PROGRAM AND A $2.5 MILLION RESCISSION TO THE BUILDINGS AND FACILITIES APPROPRIATION.

I WILL NOW DISCUSS IN MORE DETAIL SOME KEY ISSUES THAT ARE CENTRAL TO THE PRESIDENT'S PROPOSED 1988 BUDGET FOR EPA.

MAJOR GROWTH IN THE SUPERFUND PROGRAM

ONE OF THE MOST CRITICAL ENVIRONMENTAL PROBLEMS CURRENTLY FACING THE NATION IS UNCONTROLLED HAZARDOUS WASTE SITES. THE NEWLY REAUTHORIZED SUPERFUND STATUTE GREATLY EXPANDS FEDERAL AND STATE PROGRAM AUTHORITIES. OUR 1987 PLAN AND THE 1988 REQUEST WILL ENABLE THE SUPERFUND PROGRAM TO REGAIN ITS MOMENTUM AFTER THE DELAYS AND SUBSEQUENT FUNDING PROBLEMS OF REAUTHORIZATION.

DESPITE THE SUPERFUND PROGRAM SLOWDOWN, WE HAVE MADE NOTABLE PROGRESS IN CLEANING UP SOME OF THE NATION'S MOST DANGEROUS HAZARDOUS WASTE SITES. EFFORTS TO REDUCE OR ELIMINATE HAZARDOUS WASTE HAVE BEEN TARGETED TOWARDS THOSE SITES WHICH PRESENT THE GREATEST THREAT TO PUBLIC HEALTH. AS OF OCTOBER 1986, THE SUPERFUND PROGRAM COMPLETED OVER 700 REMOVAL ACTIONS. WE BEGAN REMEDIAL STUDIES AT OVER 400 SITES AND REACHED SETTLEMENT AGREEMENTS WITH RESPONSIBLE PARTIES AT 373 SITES WORTH $620 MILLION.

IN 1987 AND 1988, WE EXPECT TO INCREASE OUTPUTS SUBSTANTIALLY. BETWEEN 1987 AND 1988, OVER $2.7 BILLION DOLLARS WILL BE MADE AVAILABLE FOR THE SUPERFUND PROGRAM. INCLUDING CARRYOVER FUNDING FROM EARLIER YEARS, OUR 1988 PLAN PROVIDES ALMOST $1.6 BILLION AND 2,716 WORKYEARS FOR SUPERFUND. THIS IS $456 MILLION AND 300 WORKYEARS HIGHER THAN THE 1987 CURRENT ESTIMATE.

THE 1988 SUPERFUND PROGRAM WILL QUICKLY MOVE FORWARD WITH AN EXPANDED SITE DESIGN AND CONSTRUCTION PROGRAM, INCREASED EMERGENCY CLEAN-UP ACTIONS, STRENGTHENED FEDERAL ENFORCEMENT ACTIVITIES, AND AN EXPANDED RESEARCH AND DEVELOPMENT PROGRAM. EPA WILL INITIATE 60 REMEDIAL DESIGNS AS WELL AS 50 CONSTRUCTIONS. RESPONSIBLE PARTIES AND OTHER FEDERAL AGENCIES WILL INITIATE ANOTHER 51 DESIGNS AND 31 CONSTRUCTIONS. THIS REPRESENTS A 46 PERCENT INCREASE FOR DESIGNS AND NEARLY A 60

PERCENT INCREASE FOR CONSTRUCTIONS OVER THE 1987 LEVELS. THE BUDGET REQUEST ALSO PROVIDES INCREASED RESOURCES FOR OTHER FEDERAL AGENCIES TO ENABLE THEM TO MEET THEIR REQUIREMENTS UNDER THE NEW SUPERFUND LEGISLATION.

IMPLEMENTATION OF SPECIAL ENVOYS' REPORT ON ACID RAIN

THE SPECIAL ENVOYS' REPORT SETS OUT A COURSE OF ACTION TO DEAL WITH ACID RAIN. THE REPORT RECOMMENDS A 5-YEAR, $5 BILLION DEMONSTRATION PROGRAM FOR CLEAN COAL TECHNOLOGIES, CALLS FOR COOPERATIVE ACTIVITIES BETWEEN CANADA AND THE UNITED STATES, AND PLACES AN INCREASED EMPHASIS ON RESEARCH RELATED TO TRANSBOUNDARY ACID RAIN ISSUES.

EPA WILL PLAY A MAJOR ROLE IN IMPLEMENTING THE ENVOYS' RECOMMENDATIONS. FOR THE CLEAN COAL DEMONSTRATION PROGRAM WE WILL BE WORKING CLOSELY WITH THE DEPARTMENT OF ENERGY, WHICH HAS THE LEAD ROLE IN THIS AREA. EPA WILL MAINTAIN A CONTINUING INFORMATION EXCHANGE WITH OUR CANADIAN COUNTERPARTS ON RESEARCH AND POLICY ISSUES. IN ADDITION, EPA WILL PLAY A MAJOR ROLE IN RESEARCH ESSENTIAL TO RESOLVING TRANSBOUNDARY ACID RAIN ISSUES.

TO SUPPORT IMPLEMENTATION OF THE SPECIAL ENVOYS' REPORT ON ACID RAIN, EPA WILL DEVOTE $55 MILLION TO UNDERSTANDING THE CAUSES AND EFFECTS OF ACID RAIN. THROUGHOUT THE FEDERAL GOVERNMENT, ACID RAIN RESEARCH WILL TOTAL $86 MILLION IN 1988. EPA WILL ALSO CONTINUE RESEARCH AND DEMONSTRATIONS ON

THE LIMB TECHNOLOGY, A POTENTIALLY COST-EFFECTIVE TECHNOLOGY TO CONTROL ACID RAIN.

SAFE DRINKING WATER

THE 1988 BUDGET UNDERSCORES THE ADMINISTRATION'S COMMITMENT TO PROVIDING THE NATION WITH A CLEAN, SAFE SUPPLY OF DRINKING WATER. THE SAFE DRINKING WATER ACT AMENDMENTS OF 1986 EXPAND EPA'S RESPONSIBILITIES IN ENSURING THAT THE NATION'S DRINKING WATER SUPPLIES ARE SAFE FROM CONTAMINATION. THE LEGISLATION REQUIRES EPA TO REGULATE ADDITIONAL POTENTIAL CONTAMINANTS AND DEVELOP A PROGRAM TO MONITOR STATE AND LOCAL GOVERNMENT COMPLIANCE WITH PUBLIC WATER SUPPLY STANDARDS.

IN ORDER TO CARRY OUT THESE ACTIVITIES, THE 1988 BUDGET PROVIDES 753 WORKYEARS AND $112.3 MILLION FOR THE SAFE DRINKING WATER PROGRAM, INCLUDING $8 MILLION FOR A NEW WELLHEAD PROTECTION GRANT. IN TOTAL, THE SAFE DRINKING WATER PROGRAM WILL HAVE GROWN ALMOST 30 PERCENT SINCE 1986.

RESEARCH AND DEVELOPMENT

EPA'S 1988 RESEARCH PROGRAM WILL CONTINUE TO PROVIDE THE NECESSARY SUPPORT FOR THE DEVELOPMENT AND IMPLEMENTATION OF REGULATIONS REQUIRED BY STATUTE AS WELL AS TO EXPAND INTO AREAS WHERE NEW ENVIRONMENTAL PROBLEMS HAVE BEEN IDENTIFIED.

THE PRESIDENT'S BUDGET PROVIDES A TOTAL RESEARCH AND DEVELOPMENT PROGRAM OF $354.3 MILLION AND 1,844 WORKYEARS, INCLUDING SUPERFUND AND LEAKING UNDERGROUND STORAGE TANK RESEARCH AS WELL AS OUR WORK ON ACID RAIN. THE SUPERFUND RESEARCH PROGRAM WILL BE EXPANDED IN 1988 AND WILL FOCUS ON EVALUATING REMEDIAL TECHNOLOGIES TO IMPROVE SITE CLEAN-UPS AND PROVIDE ADDITIONAL HEALTH RISK ASSESSMENT SUPPORT FOR CLEAN-UP AND ENFORCEMENT ACTIONS.

MAINTAINING GRANT ASSISTANCE PROGRAMS

AN EFFECTIVE PARTNERSHIP BETWEEN EPA AND THE STATES IS KEY TO SUCCESSFUL ENVIRONMENTAL MANAGEMENT. THE INCREASING NUMBER OF EPA PROGRAMS DELEGATED TO THE STATES EMPHASIZES THE NEED TO IMPLEMENT A CONSISTENT POLICY ON EPA/STATE RELATIONS. EPA'S 1988 BUDGET ALLOCATES A TOTAL OF $296 MILLION FOR GRANT ASSISTANCE PROGRAMS. THIS REPRESENTS AN INCREASE OF ALMOST $10 MILLION OVER 1987.

WITHIN THIS TOTAL, $8.0 MILLION IS PROPOSED FOR THE NEW WELLHEAD PROTECTION GRANT PROGRAM. GRANTS FOR PESTICIDES CERTIFICATION AND TRAINING ARE ALSO INCREASED BY $1.5 MILLION. THESE INCREASES WILL ENABLE THE STATES TO MEET THE NEW REQUIREMENTS UNDER THE NEW SAFE DRINKING WATER ACT AMENDMENTS AS WELL AS MAKE NECESSARY IMPROVEMENTS TO THEIR PESTICIDES PROGRAMS.

ALL OF OUR OTHER CONTINUING GRANT PROGRAMS REMAIN STABLE AT THEIR 1987 LEVELS.

CONCLUSION

THESE ARE SOME OF THE HIGHLIGHTS FROM OUR 1988 BUDGET REQUEST. I BELIEVE THIS BUDGET REFLECTS A CONTINUING ADMINISTRATION COMMITMENT TO THE ENVIRONMENT, ESPECIALLY IN TIMES OF GOVERNMENT-WIDE BUDGET REDUCTIONS. THIS IS A CREDITABLE BUDGET -- ONE THAT WILL FURTHER STRENGTHEN EPA'S ABILITY TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT.

I WILL BE HAPPY TO ANSWER ANY QUESTIONS AT THIS TIME.

ACID RAIN: POLICY QUESTIONS & CORRESPONDING RESEARCH PROGRAM *

Atmospheric Sciences Policy Questions:

- What are emissions in designated base years for policy development and implementation purposes?
- How much does it cost to control these emissions?
- What are the current patterns of acid deposition?
- What is the quantitative relationship between the distribution, rate, and form of emissions and the distribution, rate, and form of deposition?

The objective of the Atmospheric Sciences Research Program is to develop a scientific understanding of the cause/effect relationship between sources of emissions and acid deposition in sensitive receptor areas. Understanding the distribution, rate, and form of emissions is a critical first step to developing an understanding of cause/effect relationships between emission sources and receptors of acid deposition.

The first policy-related question is: What are emissions in designated base years for policy development and implementation purposes?

Emissions that contribute to acid deposition include a number of trace gases, of which oxides of sulfur and nitrogen are the most important. Sulfur dioxide (SO_2), nitrogen oxide and nitrogen dioxide (considered together as NO_x) oxidize in the atmosphere after they are emitted to form sulfuric acid and nitric acid, respectively, or acidic salts. Volatile organic compounds (VOCs) can enhance the production of oxidants as can NO_x. These oxidants hasten the atmospheric transformation of SO_2 and NO_x into their respective acids. Ammonia and alkaline dust emissions are also of interest for determining the acidity of atmospheric deposition. The fraction of emissions for each of these chemical species for which man-made sources are responsible varies from very high for SO_2 (more than 95% in the eastern United States) to relatively low (about half) for ammonia and alkaline dust.

About two-thirds of the SO_2 in the eastern United States is emitted by coal-fired electric utility plants. Most of the remainder of SO_2 emissions in the East come from industrial combustion of fossil fuels in boilers and process heaters. The SO_2 emissions in the West come principally from primary metal smelters, predominantly copper. The highest concentration of SO_2 emissions is in the Ohio River basin which has a high concentration of high-sulfur coal-fired power plants.

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* This document was prepared and used in discussing acid rain issues with several public interest groups in August, 1986.

Principal sources of NO_x are highway vehicles, power plants and industrial combustion. Although these sources are more concentrated in the Midwest and Northeast, they are also concentrated in large metropolitan areas throughout the United States and Canada. Historically, emissions of SO_2 have risen irregularly since the beginning of the century, reaching a maximum in the early 1970s. They have fallen by about one-fourth since then. The NO_x emissions have risen more steadily and sharply, beginning in the early 1940s, and have only declined by about 5% since reaching a maximum in the late 1970s. It has been estimated that emissions of VOCs increased by about 50% between 1940 and 1970, and have gradually declined since then to about the same levels found in the mid-1950s.

It is important to note that there are regional differences in emissions and that different emission trends exist in each region. For example: emissions have decreased in the Northeast primarily as a result of the implementation of emission controls; growth in industry and population in the Southeast during the 1970s has resulted in increases in emissions in that region; and labor strikes, emission controls, and changes in Western smelter operations have resulted in emissions fluctuations in the West.

In 1986, a final 1980 emissions data base and inventory and a preliminary 1985 point source emission file are expected to be completed. A preliminary 1985 emissions inventory is expected to be completed in 1987. In 1988, a final 1985 emissions data base and a final 1985 emissions inventory are expected to be completed.

Emissions change as changes occur in demand for power and products, sources of fuels utilized, proposed emission control strategies and emission control technology. This leads to the next policy-related question: How much does it cost to control these emissions?

Emission projection and cost-of-control models are currently under development. These models are capable of projecting emission trends over the next several decades for alternative sets of future conditions and control requirements. The models are also capable of indicating the cost of additional control requirements.

Testing of initial versions of AUSM, the Volatile Organic Compounds Model (VOCM), the PROcess Modeling Projection Technique (PROMPT), and the Industrial Combustion Emissions (ICE) emission models are expected to be completed in 1987. In 1988, testing and assessment of refined emissions models is expected to be completed.

The previous policy questions addressed the distribution, rate, and form of emissions. It is also necessary to discern the distribution, rate, and form of acid deposition. The wet and dry components of deposition and trends of deposition need to be determined. This leads to the next policy-related question: What are the current patterns of acid deposition?

Estimates from existing linear models suggest that 25% of total sulfur emissions in North America come down as wet deposition; that is, in precipitation as rain or snow. A roughly equivalent amount (30%) comes down as dry deposition; that is, deposition in the form of particulates that fall out of the atmosphere or gasses that are adsorbed by surfaces. The remainder (45%) blows out over the Atlantic to be deposited elsewhere. These estimates do not address either the non-linearities or the regional differences that occur. What is important to note from these estimates is that dry deposition can be of the same importance as wet. Therefore, it is important to measure both wet and dry depositions.

Wet deposition alone is now being monitored at 150 stations in the National Trends Network (NTN) which reached full-scale operation in 1982. The samples are collected on a weekly basis. The precipitation samples are sent for analysis to a central laboratory located at the Illinois State Water Survey Laboratory in Champaign-Urbana, Illinois where they are analyzed.

Based upon very limited measurements as reported in the National Academy of Sciences (NAS) Report, "Acid Deposition Long-Term Trends":

- Sulfate and nitrate in the eastern half of the United States and southeastern Canada are in general a factor of five greater than those in remote areas of the earth. This suggests that sulfate and nitrate levels in this area have increased by this amount since sometime before the 1950s.

- Precipitation is currently more acidic in parts of the eastern United States than it was in the 1950s, or mid-1960s.

- Precipitation sulfate concentrations and possibly acidity have increased in the southeastern United States since the mid-1950s.

- For Hubbard Brook in New England, since 1964: hydrogen ion shows no trend; sulfate has decreased 2% per year; sodium, chloride, calcium, magnesium, and potassium have shown strong decreases with time; and nitrate appears to have increased until about 1970-1971 and subsequently leveled off.

Dry deposition requires much more complex monitors than wet deposition. Because methods of direct measurement are very complicated, dry deposition generally must be inferred or calculated from measurements of ambient concentrations and other variables (i.e., meteorological conditions, surface type and condition, time of day, etc.). The first 30 dry deposition sites will be sited in the Northeast where sensitive receptor areas are located and significant acid deposition concentrations are expected. These sites will also provide data necessary for model evaluation. By the end of 1988, one year of data from the first 30 dry deposition sites and five years of data from 150 NTN wet deposition sites are expected to be available.

The programs and policy-related questions associated with the distribution, rate, and form of emission, and the distribution, rate and form of acid deposition have been previously addressed. It is also necessary to understand the atmospheric processes that provide the link between sources of emissions and the deposition of acidic substances in sensitive receptor areas. Understanding of the atmospheric chemical and physical processes is required to be able to quantitatively describe source/receptor relationships. This leads to the next policy question: What is the quantitative relationship between the distribution, rate, and form of emissions and the distribution, rate, and form of deposition?

The greatest density of SO_2 emission is along the Ohio River valley with 50% of the total United States emissions coming from eight states (Ohio, Indiana, Pennsylvania, Illinois, Missouri, Kentucky, West Virginia, and Tennessee). The NAS has concluded that, "...in eastern North America a causal relationship exists between anthropogenic sources of emissions of SO_2 and the presence of sulfate aerosol, reduced visibility and wet deposition of sulfate.

The wet deposition of SO_4^{2-} conforms with the distribution of SO_2 emissions and climatic air mass transport. This correspondence provides a qualitative understanding that the high density of SO_2 emissions in the Ohio River valley is the source of sulfate measured in precipitation samples in the northeastern United States.

Although we have a qualitative understanding of this source/receptor link, we do not have an adequate quantitative understanding. We do not know that reducing emissions will result in a proportionate reduction in acid deposition. Thus, we have a need for numerical source/receptor models as assessment tools to address large potential changes in emissions, and numerous different proposed emissions control scenarios. Regional models are needed to provide national/state levels of resolution. Mesoscale models are needed to address local versus distant source/receptor relationships (e.g., assessment of material damage in eastern cities and other urban areas, conducting Prevention of Significant Deterioration (PSD) permitting analyses for Western sources or other assessments in areas of complex terrain, and evaluating aquatic and terrestrial ecological effects and determining the relative importance of local versus distant sources of emissions). Existing models do not have the capacity to address non-linear processes or represent the state-of-the-science understanding of the atmospheric chemistry and physics of cause/effect source/receptor relationships. In order to handle proposed control strategies involving large changes in emissions, it is extremely important to have a model that works for the right reasons, i.e., properly simulates the atmospheric chemistry and physics. Thus, such models need to be able to simulate non-linear atmospheric processes including: multi-layers transport, chemical transformation, dry deposition, precipitation scavenging processes, and the interactions between these component processes.

The conversion of SO_2 to SO_4^{2-} is limited by available oxidants. If oxidants are limited, not all SO2 can be converted to SO_4^{2-}; therefore, a reduction in SO_2 would not result in a proportionate reduction in SO_4^{2-}. The question becomes: When are oxidants limited with respect to SO_2 emissions?

Linearity is expected over continental and annual time scales; however, non-linearity is expected over small spatial and temporal scales. A key question is: What are the smallest spatial and temporal scales over which processes are linear? In order to address these needs, regional and mesoscale acid deposition models are currently being developed with frameworks to accommodate non-linear processes and state-of-the-science understanding of atmospheric processes. These models are expected to be tested and evaluated by a planned model evaluation field program.

In 1987, a regional model for calculating sulfur deposition is expected to be completed. A regional model for deposition of all acid substances and one year of surface monitoring for evaluation of atmospheric models are expected to be available by the end of 1988.

Outputs

- 1986
  - Final 1980 emissions data base and inventory completed
  - Preliminary 1985 point source emission file completed
  - Initial version of Advanced Utility Simulation Model delivered
- 1987
  - Preliminary 1985 emissions inventory completed
  - Testing of initial versions of emission models completed
  - Regional model for sulfur deposition delivered

- 1988
  - Final 1985 emissions data base completed
  - Final 1985 emissions inventory completed
  - Refined versions of emission models completed
  - Testing and model assessment of refined emission models completed
  - One year of data from first 30 dry deposition sites delivered
  - Five years of data from 150 National Trends Network wet deposition sites delivered
  - Advanced version of regional model for acidic deposition delivered
  - Completion of first year of surface monitoring for evaluation of atmospheric models

Aquatic Effects Policy Questions

- How extensive is the current damage?
- What are the anticipated rate and extent of damage in the future?
- What rates of deposition will provide various levels of protection for sensitive surface waters?

Suspected acidification in the lakes in the northeastern regions of the United States was crucial in initiating EPA's focus on acidic deposition. The recent NAS report on long-term trends found considerable evidence to show that acidic deposition has been influential in changing the nature of lakes in the Northeast. Several questions were left unanswered in that report: 1) whether many more lakes and streams will become acidic in the next few years, 2) whether any damage now visible is all we will see for a few decades (i.e., short-term ecological resistance to acidic inputs has been overcome, leaving longer-term (30 to 100 years) resistances in place).

Acid deposition raises the hydrogen ion concentration, which by definition results in lower pH. As pH decreases, effects on aquatic ecosystems increase, so that below pH five, sport fish populations do not generally exist. The pH of rain in the Northeast is now in the low fours, but the pH of lake water is usually higher than rainfall pH; for example, the median pH of lakes in the Adirondack Mountains is 6.8.

Alkalinity, or more properly, acid neutralizing capacity (ANC), is related to pH; it is the ability of the system to buffer acidic inputs. An ANC less than zero means the water has no ability to neutralize acids. Lakes with ANC less than zero and pH less than five are classified as acidic. Early in our research experience, the United States/Canada Memorandum of Intent concluded that long-term and short-term acidification of some low alkalinity waters had occurred in Canada and the United States in areas receiving acidic deposition. Although the relative importance of various acidification mechanisms has not been demonstrated, we now know that many factors in a lake's surrounding water-shed contribute to its overall sensitivity.

- How extensive is the current damage?

To measure the current extent of acidic surface waters, the National Surface Water Survey was initiated in 1983. Using a map of alkalinities of surface waters compiled from existing data as a general guide to areas of interest, a statistically sound plan was designed to yield a regionally representative picture of the current status of aquatic resources. The survey is divided into smaller projects: the Eastern Lake Survey, the Stream Survey, and the Western Lake Survey.

The Eastern Lake Survey, Phase I, sampled the Northeast, Southeast and Upper Midwest regions. Lakes with a surface area greater than four hectares were identified on topographical maps and statistically sampled to yield results that could be regionalized. A single sample taken near fall turnover serves as an index to the chemical status of each lake.

The results of the Eastern Lake Survey indicate that the largest estimated number of lakes with pH less than five are in the Adirondacks, Michigan's Upper Peninsula, and Florida. Other potentially sensitive areas contain few lakes with pH less than five. The largest estimated number of lakes with ANC less than zero are in the same regions. The overall estimated percentages of lakes in these regions with pH less than five are: Adirondacks, 10%; Michigan's Upper Peninsula, 9%; and Florida, 12%. These percentages are smaller when expressed on a lake area basis.

To give the current status of surface waters a useful perspective, EPA funded the NAS to assess historical acidity trends over time. They studied historical data on surface water chemistry, sediments, and fish populations. Trends analysis by NAS led to the conclusion that surface waters in the Northeast, and some in the upper Midwest, respond quickly to changes in acidic deposition, with statistically significant declines in surface water ANC and pH for some lakes over the past 50 years. Paleolimnologic study also showed increased surface water acidification between 1955 and 1970 for the Northeast. Analysis of fish populations showed that acidification has caused the decline of a number of fish communities in the Adirondacks.

Other studies done to address the extent question include: (1) the First Interim Assessment (a comprehensive assessment of the latest research), (2) a survey of precipitation-affected drinking water systems, and (3) the effect of storm events and snowmelt or "episodes" on aquatic chemistry. Liming is being studied to determine whether it is an effective mitigation strategy for acidic lakes. Future study will help determine the long-term effectiveness and risks, as well as cost/benefit relationships. The Fish and Wildlife Service has the lead in this area of research.

o What are the anticipated rate and extent of damage in the future?

At first, Scandinavians, North Americans, and others thought that acidification of sensitive waters would be detectable within one or two decades where rainfall pH was 4.6 or below. In 1981, the NAS concluded that of the options available, only control of emissions of sulfur and nitrogen oxides could significantly reduce the rate of degradation of aquatic ecosystems. They concluded that in some areas where rainfall pH approximates 4.1, reductions of 50% in deposited hydrogen ions might be necessary.

Now the NAS recognizes a new hypothesis and has identified two major mechanisms that control the rate of surface water acidification and lead to different watershed response rates even within the same region. These processes, which occur in the terrestrial portion of the watershed, are: (1) the ability to supply bases to neutralize acids, and (2) the ability of the watershed to retain sulfate, which thereby limits the transport of hydrogen ions and potentially toxic aluminum to surface waters. When both processes are high, a capacity-protected system results. As these factors decrease, systems increasingly respond to acidic deposition. If at current deposition loadings, a system responds within a 100-year period, it is called a delayed-response system. When both processes are very low, a direct-response system results that is either acidic now or will become acidic within ten years.

To learn more about how surface waters respond to chronic acidic deposition, the Direct/Delayed Response Project (DDRP) was initiated in 1984. This project sampled a range of lake/watershed systems that should exhibit the above response time differences. One hundred and forty-five watersheds in the Northeast and 35 watersheds in the Southeast have been sampled, permitting regionalization of results for making population estimates.

Research in the DDRP includes collecting data to model watershed processes that affect water chemistry. These processes have been modeled to create a predictive tool for answering questions about future acidification and the acidification of other areas. The tools from this program will also enable the program to address the third policy area, target loadings for deposition.

- What rates of deposition will provide various levels of protection for sensitive surface waters?

Deposition monitoring indicates loads are currently increasing in the Southeast and West and decreasing in the Northeast. The effect of changing rates of deposition is being studied by the Watershed Manipulation Project (WMP). The WMP will combine catchment, large plot, and laboratory experimentation to corroborate DDRP models and assumptions, and determine the relative importance of acidification processes. The data from the WMP will be used in combination with the models from the DDRP to address questions about target loadings for several regions.

The aquatic effects research program has maintained a trends-detection project since 1983 to assess trends in surface water acidification. Data from the long-term monitoring project will validate the research of the other projects.

By 1990, major strides will have been taken toward fully addressing the three main policy questions that provide the motivation for the aquatic effects research program.

Outputs

- 1986
  - First Interim Assessment
  - Eastern and Western Lake Survey reports (Phase I)
  - Results from Pilot Stream Survey
- 1987
  - Results from Stream Survey
  - Results from Cistern Survey
  - Direct/Delayed report for Northeast
- 1988
  - Direct/Delayed report on Southern Blue Ridge Province
  - Report on manipulation field trials
- 1989
  - Results from Episodic Response Project
  - Damage estimates for episodic events
  - Report on Watershed Manipulation Project
  - Report on watershed sulfur budgets and deposition monitoring comparisons
  - Long-term Monitoring Trends Assessment
  - Direct/Delayed report on Middle Atlantic region
- 1991
  - Direct/Delayed report on West (pending)
- 1992
  - Integration report for all Direct/Delayed Response Project results with Watershed Manipulation results

Materials Effects Policy Questions:

- What is the geographical extent of materials-at-risk?
- What are the quantitative relationships between the various forms of acidic deposition and the resulting damage rates to materials?
- What are the benefits of reducing the rate of acidic damage to materials?

Precursors to acidic deposition, especially SO_x, NO_x, and oxidants such as ozone, have long been known to be damaging to some classes of materials, with statuary and cathedrals being most noticeable. The relationship between materials degradation and acidic deposition itself is much less clear, and the question of how extensive the cultural, commercial, and personal resources that might be at risk specifically to acidic deposition is largely unknown. The policy questions that need to be addressed follow logically.

The research for the first policy question is directed toward developing inventories of residential and non-residential materials. These two classes were chosen because materials at risk characteristically follow these two divisions, e.g, residences are often made of wood, while high rises are more often glass or concrete. The residential inventory is developed from a statistical analysis of data collected from ground surveys, while the non-residential inventory can be compiled from aerial photography, analysis of existing records, and other data. Some data have been collected for the residential inventory of four cities in the Northeast. This data will be independently validated, and mathematical models will be developed to extrapolate the data to other cities. Work on the non-residential inventory is just beginning. By 1990, the two inventories will be completed and merged.

In addition to identifying the materials at risk, we must also know the incremental damage to each material due to acid deposition. Both laboratory and field studies are being conducted which will lead to the development of damage functions. A damage function shows the quantitative relationship between materials damage and acid deposition variables. In the laboratory, the materials specimens are exposed to a variety of air pollutants at known concentrations, providing individual damage mechanisms. Field exposure studies, conducted at five sites in the Northeast, aid in assessing the significance of the individual damage process in the context of all other environmental variables. Materials studied at these sites include metal alloys, carbonate stone, and painted wood and metal. The damage function for galvanized steel will be completed within the next year and the damage function for carbonate stone in the next two to three years.

Calculation of the economic benefits of reducing damage due to acidic deposition requires determination of the inventory of materials at risk and damage functions. However, to complete the calculation, other data are needed to define further material service lives, cost data and consumer response. Thus, surveys are planned that will answer these questions by 1990.

Outputs

- 1986
  - Residential materials inventory data base (Northeast)
- 1987
  - Residential materials inventory model
  - State-of-science report
  - Uncertainity analysis report
- 1988
  - Non-residential inventory data base (Northeast)
- 1989
  - Reinforced concrete damage survey report
  - Brick and mortar damage survey report
  - Consumer response report
- 1990
  - Complete materials inventory
  - Dose-response reports:
    - Galvanized steel
    - Weathering steel
    - Copper
    - Painted wood
    - Painted metal
  - Assessment of acid deposition on materials report

Forest Effects Policy Questions:

- Is there a significant problem of forest damage in the United States that might be attributed to acid deposition, alone or in combination with associated pollutants?
- If so, what is the causal relationship between acid deposition and associated pollutants and forest decline in the United States?
- If there is a causal relationship, what is the dose-response relationship between acid deposition and associated pollutants and forest damage in the United States?

Beginning in the early 1970s, extensive damage was reported for silver fir at high elevations in southern regions of the Federal Republic of Germany. This was followed by reports of similar damage to Norway spruce and European beech. In conifers, one of the most obvious and most extensive symptoms of damage was premature loss of older needle sets; another common symptom was chlorosis, or yellowing, of older needles.

Similar symptoms have been observed at high elevations in the northeastern United States. Various changes in forest conditions have been observed in the United States since the early 1980s. Apparently, increased mortality has been observed in high elevation stands of red spruce and balsam fir. Also, there is some indication that annual increment growth is reduced in these stands.

In both central Europe and the United States, the observed symptoms are non-specific; they could be caused by a number of different factors or combinations of factors. Acid deposition and air pollutants have been implicated as causal factors. A joint EPA-Forest Service research program, the Forest Response Program (FRP) has been established to study these factors.

Several different forest types exist throughout the United States and will be studied. The FRP has established four research cooperatives to study problems associated with these forest types:

- The Spruce/Fir Cooperative - to study northeastern and high elevation southeastern spruce and fir forests.
- The Southern Commercial Cooperative - to study commercially important species in the Southeast, such as loblolly, slash, and shortleaf pines.
- The Eastern Hardwoods Cooperative - to study various species of hardwood and Eastern white pine in the East.

- The Western Conifer Cooperative - to study important coniferous species in the West, such as Douglas fir and ponderosa pine.

In addition to these research cooperatives, three support groups will provide necessary information to the research cooperatives. These are:

- The National Vegetation Survey - to examine the extent and severity of damage.
- Deposition Monitoring - to provide air quality and deposition data.
- The Synthesis and Integration Team - to track activities of the cooperatives and assimilate the information for the generation of program-wide outputs.

The first policy question to be addressed involves the extent and severity of forest damage. By the end of 1988, we can expect an evaluation of this problem that will come primarily from projects of the National Vegetation Survey and from exploratory research of the Eastern Hardwoods and Western Conifers cooperatives.

The second policy question concerns the possible cause/effect relationship between acid deposition (and associated pollutants) and forest damage in the United States. In the Northeast, most damage is observed at high elevations, which are characterized by frequent exposure to clouds of low pH and high chemical loading. An important aspect of the Deposition Monitoring effort is the Mountain Cloud Forest Exposure Project, which will investigate this phenomenon at intensive study sites in the eastern United States.

A number of hypotheses have been proposed to explain observed damage. The main hypotheses include:

- Alteration of plant physiology leading to change in tree growth.
- Impact of gaseous air pollutants and leaching of nutrients from foliage.
- Over-fertilization with nitrogen through atmospheric deposition leading to increased winter injury through early break in dormancy or delayed cold hardening.
- Soil mediated mechanisms, including nutrient leaching and mobilization of toxic metal ions.
- The impact of natural factors such as drought, pests and pathogens.

Research in the cooperatives will test these hypotheses. The first-stage experiments involve studies in chambers in which experimental conditions can be closely regulated. This allows the study of very complex physiological processes under controlled conditions. Studies will also be carried out in open-top chambers, which allow less control over experimental conditions, but can include larger plants under more natural environmental conditions. Field experiments will be carried out under natural conditions of deposition, climate and stand dynamics. All of these types of experiments will be used to test the postulated mechanisms of damage. These efforts will contribute information for an evaluation of the roles of sulfur and nitrogen compounds in forest damage. This evaluation can be expected in the early 1990s.

The final policy question involves quantification of tree responses and projection of responses under different deposition conditions. The primary responsibility for addressing this question lies with the Synthesis and Integration Team and involves development of a stand-level forest response model based on individual tree models. Data from the research cooperatives will be used to develop these models, which will ultimately allow predictions of health, growth and general forest condition. Results of this effort will lead to quantification of current responses of trees to sulfur and nitrogen compounds and to models which will allow decisions and predictions related to changes in deposition conditions. We expect these results in the early 1990s.

Outputs

- 1988
    - Evaluation of reported forest damage
- 1989
    - Preliminary evaluation of the roles of sulfur and nitrogen in forest damage
- 1990
    - Quantitative estimates of curent forest response to sulfur and nitrogen
- 1991
    - Final evaluation of the roles of sulfur and nitrogen in forest damage
    - Projected role of atmospheric deposition in forests of the United States

The emphasis of all of the research presented in the previous section has been (and continues to be) the delivery of new increments of acid rain research information as soon as possible. The research answers that we will receive over the next year or two, particularly in the aquatics effects and atmospheric sciences areas, should result in major increases in our ability to assess the need and goals for an acid rain control program. I look forward to reporting these results to the Congress when they are available. However, at this time, I cannot predict the future results of the various research programs underway nor the judgment of the Administration as to the implications of those research results.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ADMINISTRATION
AND RESOURCES
MANAGEMENT

Honorable Quentin N. Burdick
Chairman, Committee on Environment
  and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Thank you for your letter of February 6, 1987. I am enclosing our responses to the Committee's written questions from our February 5, 1987 hearing.

Included in this package are the questions you submitted and the questions submitted by Senators Mitchell, Durenberger, Baucus and the Environmental Protection Subcommittee. With the exception of two of Senator Mitchell's questions on Radon funding, all of the responses are in the enclosed package. We will forward the remaining questions to you by close of business on March 6, 1987.

I apologize for the delay in providing this information and I regret any inconvenience it may have caused you.

If you have any additional questions, my staff will be happy to respond. Please contact Alvin M. Pesachowitz, Acting Director, Budget Division, on 475-8340 if more information is needed.

Sincerely,

Howard M. Messner

Howard M. Messner
Assistant Administrator
  for Administration and
  Resources Management

Enclosures

Questions Submitted for the Record by Senator Burdick

Asbestos-in-Schools

Question: I object strongly to the proposal to rescind funding for the asbestos-in-schools abatement program. Congress has made it clear that the Agency is to take aggressive action to remove this serious public threat from our schools.

As you know, the Committee requested and received the OMB passback on the Agency's budget. This document shows that the proposal to rescind these funds did not originate with OMB.

Please describe how this policy was arrived at and the rationale behind it.

Why isn't funding requested in FY 1988?

Answer: The Administration's budget request for FY 1988 proposes a rescission of $47.5 million in 1987 funds for the Asbestos-in-Schools program. The Administration believes these activities should be the primary responsibility of State and local governments and would not be the best use of Federal funding.

As a result of discussions during the FY 1988 OMB passback, a decision was made, with the Administrator's support, to request a rescission of $47.5 million of the $50 million appropriated in 1987. The remaining $2.5 million will be used for Asbestos Program Administration. A large portion of this funding will be used to provide guidance and technical assistance to State and local governments for asbestos abatement.

EPA did not request funding for Asbestos-in-Schools loans and grants in FY 1988 because prior year appropriations have greatly reduced the problem. Many States and Local Education Agencies (LEAs) already have asbestos abatement programs and sufficient means to complete abatement actions. When completed, EPA-funded activities will have reduced students' and employees' exposure to asbestos fiber by approximately 8.2 million student and employee exposure hours per week.

SOLID WASTE MANAGEMENT

Question: Budgets submitted since enactment of the 1984 amendments to the Resource Conservation and Recovery Act have largely ignored the mandates concerning solid waste management or Subtitle D.

In recognition of widespread ground water contamination problems associated with municipal landfills, the 1984 amendments required EPA to study the problem and revise landfill guidance and criteria on the basis of those findings. Is funding requested in FY88 to support this work? Will the study be complete by the October deadline this year?

Answer: The Agency requests a total of $1,509,000 and 8.6 FTE to the Subtitle D program in 1988. The Agency plans to complete and issue the Report to Congress on Subtitle D during November of 1987 in accordance with the statutory deadline. EPA currently plans to meet the March 1988 deadline for issuing revised landfill guidance and criteria.

Question: Has any funding been requested since enactment of the 1984 amendments to support state programs under Subtitle D?

Answer: The Agency has not requested resources to support State programs under Subtitle D. The Agency is requesting funds in 1988 for State programs for the regulation of mining waste. The Agency recently determined that mining wastes should be regulated under Subtitle D, and has requested $2,000,000 for assistance to States to develop programs to implement Federal mining waste standards, including coordinating with the Agency's mining waste program and with other State and Federal regulatory programs already in place.

Question: I sponsored an amendment to the Act requiring EPA to study and periodically report to Congress on options for extending the life of landfills and potential uses for those that have been retired. The first report was to have been submitted by October 1, 1986. To my knowledge we never received this report. Is EPA fulfilling this mandate? Have resources been allocated to support this work?

Answer: The report on extending landfill life and reusing landfill areas will be delivered to Congress in April of 1987. Since the report will be finalized in FY 87 we have allocated no further resources to this activity in FY 88.

WELLHEAD PROTECTION

Question: A significant provision of the Safe Drinking Water Act Amendments of 1986 established the wellhead protection program. This program offers States the opportunity to develop and implement plans to protect ground-water resources. Traditionally, North Dakota has been in the forefront of States seeking delegated authority to manage and administer programs of this kind. EPA has requested $8 million for this program in FY 1988.

How is implementation proceeding and how many State proposals does EPA anticipate receiving in the current year and next?

Answer: Program development activities for the newly authorized Wellhead Protection (WHP) program are proceeding on schedule. Technical committees, which include representatives of State and local governments, have been meeting on a regular basis since late summer, 1986. In January, we held two workshops in which the technical committee was assisted in framing the guidance for this program by other State and local officials as well as business, industry, environmental, and other experts. We expect to issue both program and grant application guidance in June 1987. We are planning to publish a notice of availability of funds for fiscal year 1988 in the Federal Register also in June 1987.

Because the schedule for program development activities involved most of fiscal year 1987, we did not budget for funding in the current year. We will, however, accept applications this year but will not issue grant awards until fiscal year 1988. Based on preliminary estimates, we are expecting at least one third to one half of the States to submit an application for a Wellhead Protection program grant in FY 1988. We can provide the Committee with more reliable figures in the next few months after all the States have been briefed on and reviewed the guidance for this program.

SALARY AND BENEFITS TRANSFER

Question: The budget proposed transferring $22.4 million from the Research and Development and Abatement and Control Appropriations in FY 1987 to cover the 3% pay increase and Federal Employees Retirement System. Have you requested supplemental funding to cover these costs from OMB?

Answer: We requested $22.4 million from OMB to cover our additional costs in 1987.

Question: Have you communicated with the Appropriations Committees on the proposed reprogramming?

Answer: Yes, we have discussed the proposed transfers with both the House and Senate Appropriations Committee staff.

Question: If additional funds are not approved how would the Agency go about absorbing the costs?

Answer: The Agency would absorb these increased costs by taking the necessary funds from the expense portion of the Salaries and Expenses Appropriation.

EPA FEES

Question: The President's budget proposes collecting $40 million in fees from various Agency programs in FY88. $10 million is estimated to be collected from the pesticides and toxics programs in the current year.

The Agency can collect fees through the rulemaking process but to retain them for use in appropriate programs will require legislation.

-- What is the status of rulemaking efforts? When will legislation be proposed?

-- Are the estimated revenues in the budget realistic?

Answer: Three new fees are currently in the midst of the rulemaking process. Comments on a Notice of Proposed Rulemaking (NPRM) for the quality assurance fee have been analyzed and the Agency plans to make a final decision on this fee within 45 days. The comment period on the pesticides registration fee NPRM is nearing completion. These comments must be analyzed before a final fee is developed. The toxics program plans to publish a NPRM next month on a fee for the review of new chemicals.

OMB recently approved a legislative proposal submitted by the Agency. Under the proposed bill, certain fees -- for services relating to pesticides, the review of new chemicals, regulation of mobile sources of air pollution, ocean disposal, and quality assurance products and services -- collected by the Agency would be deposited into a Special Fund in the U.S. Treasury. These funds would then be available for appropriation, to remain available until expended, to carry out only the activities for which the fee is charged. The bill should be sent to Congress within the next two weeks.

We are making every effort to get the appropriate fee systems in order to meet the revenue projections in the 1988 President's Budget.

ACID RAIN

Question: According to President's budget, EPA is studying the application of existing authorities in the Clean Air Act to reduce acid rain pollutants. A report is to be completed early this year.

When will this report be available and what do you anticipate the findings will be?

Answer: One of the recommendations of the Joint Envoys Report on Acid Rain which President Reagan endorsed last year was to review "existing air pollution programs and legislation to identify opportunities, consistent with existing law, for addressing concerns related to transboundary air pollution." EPA was given the lead in implementing the recommendation, and the review is now nearing completion. The report should be available by March 1, 1987.

Questions Submitted for the Record by Senator Mitchell

CLEAN WATER ACT IMPLEMENTATION

Question: Will the Agency provide to the Committee detailed estimates of the costs of implementation of the Clean Water Act Amendments?

Answer: The Agency is now in the process of assessing the costs of implementing the Clean Water Act Amendments and expects to complete that assessment by the end of March. We will provide the committee our detailed estimates once those are completed.

Question: Will the Agency provide the Committee with reports on the status of this assessment at thirty day intervals?

Answer: Yes, the Agency will provide the Committee with status reports at thirty day intervals. At this point, the Assistant Administrators are determining EPA's reponsibilities under the Act and developing resource estimates for FY 1987 and 1988 to carry out those responsibilities at the Headquarters, Regional and State levels.

Question: Will the assessment provided by the Agency provide data on the following topics:

-- the actual costs of implementation of each section of the Water Quality Act;

-- the portion of these costs (if any) provided for the FY 87 budget or proposed in the FY 88 budget.

-- an analysis of costs in Headquarters and regions; and

-- an analysis of costs to States of implementing the Act.

Answer: The assessment the Agency is developing will provide data on the estimated costs of implementing each major section of the Act, in 1987 and 1988, the split of those costs between EPA headquarters and regions, and the estimated need in State grants for States to implement their responsibilities. We are not, at this time, developing a full analysis of total State costs (Federal and State funds) to implement their requirements.

INDOOR AIR

Question: Will you provide to the Committee a copy of the Indoor Air and Radon Research Plan as submitted to the OMB, along with any written comments and a summary of oral comments from the OMB?

Answer: Attached* is a copy of the draft report on indoor air and radon research which was submitted to OMB for review in January. OMB did not provide written comments to EPA on the report, but did provide oral comments which we are incorporating in a revised version of the report. We expect the revised report to be undergoing final review in the coming week.

In oral discussions OMB asked us to tie the report more closely to the specific language of Title IV; shorten the introduction and make it somewhat more succinct; include a brief description of research underway which addresses the concerns identified in the statute; and, delete any detailed description of the program being developed to address indoor air quality concerns until we report back to Congress on the results of the Research Needs Assessment.

Question: Will the Agency provide a detailed indoor air research plan to the Committee not later than April 1st?

Answer: In discussions with interested staff of House and Senate Committees we agreed to provide the results of our Research Needs Assessment, including a research plan, in April. It is not likely that this material will be available until late April.

Question: Will the research plan provide estimates of the costs and timing of research identified as necessary, along with an assessment of what portion of these costs are provided in the FY 87 and 88 budgets?

Answer: We do not expect to provide estimates of costs and timing in this plan. The plan we expect to provide in April will still be a preliminary document which we plan to share widely with our Federal Agency counterparts and the interested public. We expect that a number of the areas identified as candidates for additional research will fall outside the purview of the Environmental Protection Agency, and further, that we need to achieve a wider consensus on the direction the Federal government should take with regard to indoor air quality. We certainly will be in a better position in April to describe in more detail the research we are conducting in FY 1987 and plan to undertake in FY 1988 in the context of the research needs identified in the assessment.

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*Retained in committee files.

Question: Will the Science Advisory Board provide its review of both phases of this plan? When will the Science Advisory Board review be available to the Committee?

Answer: In September, 1986, the Science Advisory Board's Indoor Air Quality Research Review Panel conducted a review of the scientific quality of specific on-going EPA research projects on indoor air and responded to a proposal by the Agency's Office of Research and Development to conduct a comprehensive review of the current state of knowledge on indoor air pollution. The details of that first review are included in the forthcoming report to Congress required by Title IV of the Superfund Amendments and Reauthorization Act. In light of the Title IV requirement that the plan for implementation of the research program be submitted to the SAB as well as to the Congress, we do plan to submit the research implementation plan to the SAB at the time we submit it to Congress. The comments of the SAB will be forwarded to Congress when received by EPA.

RADON RESOURCES: EPA

Question: Please provide a full assessment of the funding for radon-related programs in the Agency. This should include the budget for the Radon Action Program, all research related to radon, activities in the Drinking Water program related to radon, and any assistance provided to States through Regional Offices. Please provide this data for FY 87 and 88 and note the difference in each and explain the reason for any change.

Answer: The total funding for radon-related programs in the Agency for FY 1987 is 58.8 FTEs and $5,390,000; the total requested for FY 1988 is 50.8 FTEs and $3,930,000. (This does not include resources for the Office of Drinking Water; see next page.)

The following represents the FY 1987 and FY 1988 breakdown for these radon-related programs. Only FTEs and extramural funds are reported.

OFFICE OF RADIATION PROGRAMS

FY 1987	FY 1988
28.0 FTEs $3,000,000 extramural	28.0 FTEs $2,500,000 extramural

Explanation of change: Major tasks within the Radon Action Program include the State survey program, the national survey, and the Radon Measurement Proficiency Program. EPA is currently providing assistance to ten States conducting radon surveys. Although the Agency originally intended to limit the assistance to laboratory analysis, the Agency decided to provide assistance in designing State surveys, in choosing the houses to be measured, and in interpreting the data. The Radon Measurement Proficiency Program continues to grow significantly; participation in Round 3 (February 1987) was almost twice that of Round 2 (August 1986) and the Agency expects greater growth for Round 4 (August 1987). The Congress added $500,000 to the Agency's FY 1987 budget to accelerate the national survey; these funds have not been requested in FY 1988.

OFFICE OF RESEARCH AND DEVELOPMENT

Radon Mitigation Demonstration Program

FY 1987	FY 1988
19.0 FTEs $1,525,000 extramural	8.0 FTEs $800,000 extramural

Explanation of change: The Congressional add-on in FY 1987 has enabled the Agency to increase the pace of its radon mitigation research program, thereby completing mitigation work originally planned for FY 1988. Therefore, although there is a decrease in FY 1988, the resource levels provide for a relatively stable program. ORD will continue to demonstrate mitigation techniques in the highest priority home types, consistent with the Science Advisory Board's recommendations.

RADON IN WATER RESEARCH

	FY 1987		FY 1988
0 FTE	$315,000 extramural	0 FTE	$80,000 extramural

Explanation of change: Progress will be made in FY 1987 to identify reliable measurement techniques and mitigation methods for radon in drinking water. However, radon in water is considered to be only a minor source of indoor radon exposure. Consequently, in FY 1988 the Agency has chosen to focus resources almost exclusively on activities related to radon in soil.

HEALTH EFFECTS RESEARCH

	FY 1987		FY 1988
0.5 FTE	$550,000 extramural	0.5 FTE	$550,000 extramural

OFFICE OF DRINKING WATER

	FY 1987		FY 1988
0.3 FTE	$ *	0.3 FTE	$ *

The Agency is developing revised regulations for radionuclides in drinking water. The increase of $100,000 in FY 1988 will be used to propose regulations and to continue the completion of occurrence, human exposure, health effects/risks, treatment development and cost analysis assessments. The cost of this effort is $200,000 in FY 1987 and $300,000 in FY 1988. Further, a series of workshops are being conducted around the country on the overall subject of drinking water. The workshop costs are about $300,000.

* Separate costs specifically related to radon-related drinking water activities cannot be readily separated out.

REGIONAL OFFICES

FY 1987	FY 1988
11.0 FTEs $0	14.0 FTEs $0

Explanation of change: The increase in the FY 1988 Regional radiation staff reflects the growing emphasis on delivery of the various components of the Radon Action Program, and the increased awareness of the potential for radon problems by the public at large.

RADON RESOURCES: OTHER AGENCIES

Question: Please provide a full assessment of the funding for all radon-related activity (research, assessment, information, etc.) in other Federal agencies, including DOE, CPSC, HUD, HHS, and any others.

Answer: The following represents our best estimates as to the radon budgets for other Federal agencies in FY 1986, FY 1987, and FY 1988. Although EPA does coordinate its radon activities with those of other Federal agencies, it does not have access to the exact levels of investment for each of those Agencies. Therefore, we were not able to supply all the information requested.

DEPARTMENT OF ENERGY

FY 1986	$ 2.3 Million
FY 1987	$ 4.1 Million
FY 1988	$ 14.1 Million

CONSUMER PRODUCT SAFETY COMMISSION

Unknown

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

FY 1986	$ 0
FY 1987	$ 0
FY 1988	$ 0

DEPARTMENT OF HEALTH AND HUMAN SERVICES

FY 1986	$ 62,000
FY 1987	$ 115,000
FY 1988	$ 210,000

NATIONAL BUREAU OF STANDARDS

FY 1986	$ 80,000
FY 1987	$ 61,000
FY 1988	Unknown

UNITED STATES GEOLOGIC SURVEY

FY 1986	$ 25,000
FY 1987	$ 25,000
FY 1988	Unknown

BONNEVILLE POWER ADMINISTRATION

FY 1986/87	$ 3.3 Million
FY 1988	Unknown

Questions Submitted for the Record by Senator Baucus

RCRA DEADLINES

Question: Mr. Thomas, in your statement you pledge a strong commitment to meeting Congressionally mandated deadlines. There is a statement in the OMB passback document that requires some explanation concerning the RCRA program. OMB rejected EPA's request for additional money for the regulatory program stating,

> The Administration is clearly on record stating that it is not possible for EPA to meet all of the regulatory deadlines required by the 1984 Amendments.

Is this the case?

Answer: It is true that the Agency has stated that not all the deadlines will be met. Most major regulations, however, have either been promulgated or are projected to be completed on time. Of the 69 regulatory or report deadlines required by the 1984 Amendments, 28 have already been completed. These include the land disposal restrictions schedule and the solvents and dioxin rule, small quantity generator regulations, burning and blending administrative requirements, tank standards, notification requirements for underground storage tanks, and reports on waste minimization and domestic sewage. Most remaining major regulations and reports are on schedule, including land disposal restriction rules for the California list and wastes listed under Section 3001, and the Subtitle D Report to Congress.

Question: If so, which deadlines can't be met?

Answer: The following 27 regulations, listings and reports to Congress have not been completed and the deadlines have been missed or the Agency expects to miss the deadline:

Regulations

Procurement guidelines for:
  - paper
  - retread tires
  - refined oil
  - rubber asphalt

Used oil listing
Used oil standards
Burning and Blending--Technical Standards
Double Liner/Leachate Detection Rules
Containerized Liquids in Landfills Standards
Toxicity Characteristic

Toxicity Characteristic Leaching Procedure
Leak Detection
Underground Storage Tanks--Petroleum (New)
Underground Storage Tanks--Petroleum (Existing)
Underground Storage Tanks--Non-Petroleum (New)
Air Emission Standards

Listings

Wood preserving wastes
Petroleum refinery wastes
Inorganic chemical wastes
Coke by-products
Paint production wastes
Coal slurry
Chlorinated aromatics
Other dioxins

Reports

Small Quantity Generator Waste from Educational Institutions
Extending the Useful Life of Municipal Landfills
Use of Private Inspectors

Question: Would additional funding put EPA on schedule?

Answer: Resource levels have been adequate to meet the deadlines. For deadlines the Agency has missed or expects to miss, resource levels are not a major cause. Rather, the delays largely result from the time it takes to perform necessary studies and gather data from laboratories and the regulated community and the need to resolve the many policy issues that arise. Delays also occur when the Agency must redirect its approach based on newly-generated information.

RURAL WATER ASSOCIATION

Question: Once again no funding is proposed to support the National Rural Water Association. This organization provides technical assistance to small water supply systems in Montana and other largely rural states. At a cost of less than $3 million to EPA and a similar contribution from the Farmers Home Administration it is money well spent. I seriously doubt that EPA could manage a similar program for the cost. Furthermore, the small water systems the Rural Water Association serves are precisely the ones who can't afford to pay for comparable services and consultants. Why isn't there money in the budget for this program?

Answer: Funding for the NRWA was originally provided to demonstrate a grass-root, self-help effort in improving compliance among small rural systems. EPA believes that this objective has been met; the National Rural Water Association has demonstrated the effectiveness of grass roots training and technical assistance in rural water systems. The National organization has established 31 state associations, covering 33 states. With past support from EPA, the NRWA is now in a position to market its services to States and the small systems.

Question: Has EPA budgeted any funding for small system technical assistance, particularly to meet the new requirements of the Safe Drinking Water Act amendments?

Answer: The Agency's State program grant assistance request of $33,450,000 includes assistance to small systems in meeting new requirements. The States, as primary agents, are responsible for providing assistance to these systems. Separate funding for small systems was not requested. This is an increase of $5.0 million per year over the pre-amendments level.

DRINKING WATER MONITORING

A major provision in the amendments enacted last summer requires the Agency to establish a program for monitoring for unregulated contaminants in drinking water. Congress authorized $30 million for this program.

Question: How much has been requested? Will regulations be promulgated by the end of this year as required by the Act?

Answer: While $30 million was authorized in the SDWA Amendments for FY 1987, funds were not requested due to competing budget priorities and no funds were appropriated. This authorization does not apply to FY 1988 and later budgets.

Monitoring regulations for unregulated contaminants are expected to be promulgated in June 1987. The regulations will require all public water systems to sample surface and ground water for possible contamination by any of some 50 volatile synthetic organic chemicals (VOCs). The VOCs are the most common organic contaminants detected in drinking water and in fact are excellent surrogates for the presence of other synthetic organic chemicals (with the exception of organic pesticides) in drinking water supplies. The VOCs' value as surrogate has also been proven many times over in analyses of Superfund sites. The regulations will be phased in over time so that small systems will be required to monitor during the last two years. Public water systems will be expected to meet the monitoring requirements with the assistance of the States.

Monitoring requirements that assure compliance with MCLs for at least 74 other synthetic organic chemicals, pesticides, inorganic chemicals, radionuclides, and microbiological contaminants will be promulgated in two groups, one in June 1988, the other in June 1989.

EXPLORATORY RESEARCH

Question: Mr. Thomas, I would like your views and Dr. Newill's, if he cares to comment, on the role of long term exploratory research at EPA.

Answer: It is specifically the charge of EPA's Office of Research and Development (ORD) to conduct whatever research is needed to support EPA's mission of assessing and reducing risk to public health and to the environment. It can be beneficial for us to focus our attention on research of the many emerging problems that will need the results of long range research for their resolution, such as the environmental impacts associated with global warming and acid rain, the increasing population pressures on coastal and estuarine systems, the release of genetically engineered organisms into the environment and the widespread contamination of groundwater and soil from Superfund sites and generators of toxic and hazardous wastes. These are long term environmental problems that can be as much of an EPA responsibility as the problems of immediate concern. To address these complex problems will demand the application of science and technology from a range of fields and will often require scientific methods to be practiced in their most subtle forms and at their most advanced levels.

Question: Do you have suggestions on how Congress should go about providing some stability to the research program?

Answer: The Agency is presently drafting a new policy for planning long-term research. This policy will identify those research components that are long-term in nature as well as the appropriate measures to provide adequate and stable funding. The new long-term policy is scheduled to be completed in May 1987. We will send you a copy of the policy as soon as it is released.

Question: What level of support is requested in the budget for the Centers of Excellence?

Answer: The requested FY 1988 budget for the Environmental Research Centers (ERC) Program (previously, the Centers of Excellence Program) is $4.5 million, which is approximately the same as the FY 1987 level. The FY 1988 request is sufficient to support the eight ERCs in that program at an average budget of approximately $560 thousand each.

PROPOSED RESEARCH AND DEVELOPMENT TRANSFER

Question: An $11 million transfer of funds is proposed in the current year from the research and development program to the salaries and expenses account. If this transfer is implemented, how will the research program be affected?

Answer: At the present time the Agency does not plan to implement the proposed transfer. The House Committee on Appropriations has informed the Agency that it does not approve of the proposed $11 million transfer of funds from the Research and Development (R&D) appropriation. The Committee has directed the Agency to continue to carry out activities under the R&D account as originally provided by the Congress, without making contingencies in the operating base for transfer.

Question: Specifically, what research efforts will be redirected or terminated as a result?

Answer: Because the transfer of funds will not be implemented, no proposed research efforts will need to be redirected or terminated.

Questions Submitted for the Record by Senator Lautenberg

ASBESTOS-IN-SCHOOLS

Question: I was disturbed to see that once again the Administration is proposing to kill the grant and loan program for asbestos in the schools. I am quite confident that the Appropriations Committee, on which I also serve, will not approve the rescission request. But, I must say that the continual efforts by the Administration to kill this program that Congress has shown strong support for is very disruptive. No one can do any rational planning when the program appears to be on again, off again. I would like to find out if your understanding of the need for this program is different from mine. Would you agree that there are still schools which need to clean up their asbestos and lack the necessary financial resources to pay for the work?

Answer: There are some schools which still have asbestos problems and are in the process of identifying funds to finance abatement. However, we believe the number of those schools is decreasing and will continue to decrease for several reasons.

First, previous ASHAA appropriations distributed by EPA in 1985 and 1986 have reduced the amount of damaged asbestos-containing material in financially needy school districts. EPA has awarded a total of $90 million over the last two years to more than 350 school districts for 800 asbestos abatement projects.

Second, the demand for ASHAA funds has dropped from 1,100 school district applications in 1985 to only 370 in 1986. This decline should continue as state award programs and local funds enable schools to perform abatement work without federal assistance. Thirty-two states have enacted more than 60 asbestos laws -- many of them with seed funding from EPA. Nearly half of the states with asbestos laws have provisions financing programs for abatement and six of those states have their own funding programs in place. Our regional EPA offices report that a significant number of school districts have proceeded with abatement using state and local funds.

Third, EPA's technical assistance program is helping hundreds of schools identify and evaluate asbestos hazards, set priorities, make appropriate abatement decisions and find qualified abatement contractors. For example, last year alone, EPA, through guidance and field counseling, helped schools reduce hazards in 413 unfunded ASHAA applicant projects with damaged asbestos-containing material. EPA asbestos training and information centers and their satellites, located at nine universities across the nation, have trained more than 5,000 architects, engineers, contractors and others who supervise school abatement projects to select appropriate response actions and apply state-of-the-art practices.

If the 1987 ASHAA funds are not rescinded, we plan to apply between $30 million and $35 million to priority projects in needy school districts by April 1, 1987 -- the date which Congress requested EPA make its ASHAA awards. The balance of the money (approximately $8 million to $12 million) would be made available to new applicants in June.

Question: This Committee clearly thought that an asbestos problem still exists in the schools. That is why we wrote the Asbestos Hazard Emergency Response Act. EPA is required to draft clear standards for the schools to use in determining whether asbestos in their buildings is hazardous or not. Do you expect even more schools to uncover asbestos problems when they start doing the inspections required under the new asbestos legislation?

Answer: Clearly, some schools will discover new asbestos problems while completing required inspections, conducted in accordance with the Agency's new AHERA regulations. This may be particularly true of schools which failed to comply with the Agency's 1982 Asbestos-In-Schools Identification and Notification Rule, which required schools to inspect for all friable asbestos-containing materials in their buildings by 1983.

However, many of the most serious asbestos hazards in schools have already been identified and corrected, due to the Agency's 1982 asbestos rule and compliance program, to ASHAA loan and grant assistance, to EPA's technical assistance on asbestos identification, hazard evaluation and appropriate abatement, and to responsible state programs and local actions. Under the new AHERA regulations, EPA will provide schools with clearer standards for appropriately addressing hazards which remain in their buildings.

Question: One criticism that I hear from many constituents is that the federal government imposes requirements like those in the asbestos legislation and then does not provide any money to help them meet those requirements. I am especially troubled by this because half or more of the awards are in the form of repayable loans, not grants. The money will be returned to the Treasury. In light of the need for help in paying for clean up that schools can expect for some time to come, why does the Administration persist in trying to kill the funding?

Answer: There is consensus about the need to properly abate serious asbestos hazards in our nation's schools. EPA has developed and continues a program which provides technical assistance to help schools identify and evaluate asbestos hazards and make appropriate abatement decisions. However, we continue to believe that direct federal funding of abatement projects in schools does not represent the most effective use of federal resources.

ASHAA clearly directs EPA to conduct this financial assistance program using loan funds primarily. Grants are to be awarded only when it is determined that a school cannot complete its abatement program with a loan. For this reason, three-quarters of the funds distributed in 1985 and 1986 have been in the form of loans.

Question: We put some strict deadlines in the new asbestos law. If you fail to meet these deadlines, the so-called hammer will fall. In other words, the backup standards in the bill will go into effect if you move too slowly. Do you think EPA will be able to finish in time to avoid the hammer?

Answer: The Agency expects to propose regulations for the new asbestos law -- the Asbestos Hazard Emergency Response Act (AHERA) -- on time, by April 20, 1987. AHERA standards must be issued for asbestos inspection, hazard assessment, response or abatement actions, periodic surveillance, operations and maintenance, and school management planning.

EPA met its first statutory deadline on December 20, 1986, when an Advance Notice of Proposed Rulemaking (ANPRM) was signed by the Administrator. The ANPRM announced the Agency's intention to begin rulemaking and requested information and comment about specific technical and policy issues.

The EPA has formally chartered a negotiated rulemaking panel of representatives from school, industry, union and other affected groups to develop a proposed rule. The panel will meet five times between February 1 and April 3, 1987 in an attempt to achieve consensus on selected issues or specific regulatory language, which EPA would then incorporate into the proposed rule.

If the panel fails to reach consensus, an internal Agency work group, constituted in November 1986, will complete the proposed rule. The work group produced a draft AHERA regulation on February 4, 1987, which has since been provided to the negotiated rulemaking panel to facilitate its deliberations. It is being modified to reflect the progress of the panel and improvements by the Agency work group.

EPA also intends to meet the statutory deadline for issuing a final AHERA rule and for completing a study of asbestos-containing materials in public buildings, both due by October 17, 1987.

OZONE NONATTAINMENT

Question: Ozone nonattainment is a major problem for New Jersey. Like many areas, my state is not expected to meet the attainment deadline. Does this budget reduce funding aimed at the ozone nonattainment crisis?

Answer: Resource levels requested for ozone attainment activities remain essentially the same as in FY 1987 (394.8 FTEs and $45,300,000 in total dollars for FY 1988 vs 363.3 FTEs and $45,000,000 total dollars in FY 1987). Workyears for the regional program would be slightly increased in FY 1988.

Question: Does this budget request have sufficient funding to ensure that EPA can assure compliance with the ozone standard?

Answer: As you know, the ozone nonattainment problem is very complex and will require a long-term solution because many control options involve significant social and economic considerations. The Agency believes, however, that the FY 1988 Congressional budget request will allow EPA to continue its efforts toward the development of a workable and reasonable program for confronting the difficult problem of ozone nonattainment.

AIR TOXICS

Question: It is my understanding that this budget reduces funding for programs related to air toxics. This seems misguided in light of the problems the Agency has had in listing toxics under section 112? Why is air toxics funding being reduced?

Answer: The Agency's overall funding levels for both air toxics program activities and air toxics research and development would not be reduced under the levels requested. The FY 1988 Congressional Budget request includes a slight increase over FY 1987 levels -- plus 5.1 workyears and $2,400,000 total dollars for air program activities and plus 7.4 workyears and $3,400,000 total dollars for research and development. FY 1987 and requested FY 1988 resource levels are shown below:

AIR PROGRAM ACTIVITIES

1987			1988		
273.2	FTEs	$37,800,000	278.3	FTEs	$40,200,000

RESEARCH AND DEVELOPMENT

1987			1988		
182.1	FTEs	$22,600,000	189.5	FTEs	$26,000,000

AIR PROGRAM FUNDING

Question: What other areas are reduced in the air program? Do such reductions affect or include EPA activities on acid rain, ozone depletion, or climate change?

Answer:

Air Program: The FY 1988 Congressional budget request for the air program, excluding research and development, include a net overall reduction of 11.0 workyears and $5.7 million total dollars. These reductions reflect:

(1) completion in 1987 of some of the preliminary development work for National Emission Standards for Hazardous Air Pollutants, work needed to make chlorofluorocarbon regulatory decisions, and global change studies;

(2) more lengthy schedules for the review and processing of certain minor State Implementation Plan revisions; and

(3) completion of analytical work on fuel volatility and evaporative emissions rulemaking.

Ozone depletion (chlorofluorocarbons) and climate change resource levels for FY 1988 would total 5.0 FTE and $0.3 million total dollars vs. 7.0 FTE and $5.4 million total dollars in FY 1987.

Research and Development: Within a net increase in FY 1988 of 1.7 FTE and $2.4 million, reductions in air research and development total 6.8 FTE and $2.1 million total dollars and reflect reduced research for National Ambient Air Quality Standards review and New Source Performance Standards development. FY 1988 acid rain resources would remain essentially the same as FY 1987 (63.9 FTE and $55.3 million total dollars). Resource levels for ozone depletion in FY 1988 also remain the same as FY 1987 (1.0 FTE and $.9 million total dollars). Climate change resource levels would increase in FY 1988 -- 3.0 FTE and $2.2 million total dollars vs. 3.0 FTE and $1.2 million total dollars in FY 1987.

FUNDING FOR OIL SPILLS

Question: The Water Quality program is also reduced, primarily through reductions in technical assistance for construction grants, the oil spill fund, and the elimination of the Clean Lakes program. Given the increase we have seen in oil spills, particularly in the Delaware River, why are you cutting the oil spill fund?

Answer: The FY 88 request for oil spills FTE is a decrease of 21 FTE from the FY 87 request. We believe this is commensurate with the probable demand on our resources. We are finding in recent years that there are fewer major oil spills where EPA is having to get involved, largely because industry is becoming better able to respond adequately. In FY 86 EPA personnel were involved with 133 oil spill responses. Today, one third of the way through the year, we are projecting EPA involvement in only 90 oil spill responses during FY 87.

Question Submitted for the Record by Senator Mikulski

NONPOINT SOURCE RESOURCES AND FUNDING

Question: Mr. Thomas: In a question to you concerning funding of the just enacted Clean Water Act Amendments, Senator Burdick asked you specifically about a supplemental appropriations request for implementation of the non-point source program and stormwater discharge permit requirements. In your response, you indicated that the Administration is expected to request funding for the storm water program but not for the non-point source program. As you know, the non-point source program was important to the Congress and is particularly important to the Chesapeake Bay cleanup effort.

In that regard, it is my understanding that your current headquarters non-point source staff numbers only ten or twelve. Please provide me with a breakdown of that staff's job descriptions and professional backgrounds. In order to write the implementing regulations for the non-point source program, and to educate the States and EPA's Regional offices as to their implementation, it appears to me that considerably more headquarters staff are required for this effort. Do you, in fact, plan to request additional funding and personnel in a supplemental budget request to get this new program underway? What level of funding and staff resources will you ask for? If your decision is still pending, please provide me with the criteria you will use to make your determination.

Answer: Attached is a breakdown of current headquarters nonpoint source (NPS) staff indicating their job descriptions and professional backgrounds. The Agency is currently considering the possible need for additional resources to support the increased NPS activities required by the Water Quality Act Amendments of 1987. Factors that will be considered in this analysis include the following: States and local jurisdictions appropriately have the lead responsibility for NPS pollution control; maximum use will be made of existing data, information and State NPS program activities; and related funds and program activities of other Federal and State programs will be leveraged to the fullest.

Current EPA Headquarters Nonpoint Source Staff

Name	Job Description	Professional Background
Myers, Carl	Program Manager (Physical Science Administrator) Supervisory Engineer - Branch Chief	Water Quality Management and Nonpoint Source Control at Local and Federal Levels.
Meek, James	Policy and Program Development (Supervisory Engineer)	Pollution control/Water Supply/Hydro-Power consulting to State and Local Jurisdictions; Water Quality Management and NPS Control at Federal level.
Athayde, Dennis	Technology Development and Technical Support (Supervisory Engineer)	Water Resources Development at State level; Water Quality Management and NPS Control at Federal Level.
Thronson, Robert	Technical Support, Federal Agency Liaison (Geological Engineer)	Surface and Ground-Water Protection, Water Resources Development at State Level; NPS Control at Federal Level.
Tuller, Stuart	Policy/Program Analysis and Evaluation (Program Analyst)	Policy/Program Analysis and Evaluation and Public Affairs in Water Enforcement, Municipal Construction and NPS at Federal Level.
Horne, Robert	Monitoring and Data Analysis, Automated Data Processing (Environmental Engineer)	Monitoring and Data Analysis, Data Base Development and Computer Mapping for Point and Nonpoint Sources at Federal Level.

Name	Job Description	Professional Background
Weinberg, Anne	Policy/Program Analysis and Communications (Program Analyst)	Environmental Communications and Policy/Program Analysis in Water Quality Management and NPS Control at State and Federal Levels.
Shifflett, Janet	Secretary (Supervisory)	Secretary
Buie, Lynda	Clerk-Typist	Clerk-Typist

Questions Submitted for the Record by Senator Stafford

NATIONAL ACID PRECIPITATION ASSESSMENT PROGRAM

Question: For several years now the Congress has been providing the government with funds to conduct something called the National Acid Precipitation Assessment Program. Every year you come up here and tell us that the Administration is making a significant commitment to this effort. But it's been a long time since we have seen any product at all from this program. The last annual report from NAPAP is dated 1984. The preliminary national assessment was to be published in 1985. It is now 1987. This very expensive roadblock to acid rain control legislation must come to an end soon. Can you give us a date on which you will deliver to the Congress a thorough, if only preliminary, review of the research work that is being conducted by NAPAP and a statement of what we have learned as a result of this research program? We want a real deadline on this one.

Answer: The Director of Research for the National Acid Precipitation Program is responsible for managing a consolidated Assessments Program for the community of Federal agencies that are working on acid rain research. The Director of Research plans to issue by June 1, 1987 a First Interim Assessment of scientific information known thus far on the acid deposition phenomenon. EPA's research program will, of course, be a major contributor to this assessment document.

SMSA ONE-HOUR OZONE CONCENTRATIONS

Question: Please provide tabulations of the highest, second highest, and third highest 1-hr ozone concentrations for the Standard Metropolitan Statistical Areas with populations equal to or greater than 500,000 for the years 1980 to the lastest available for each city. One table each for the highest, second highest, and third highest.

Answer: In response to your request we are enclosing hourly data for the second highest daily maximum concentrations for the years 1980 through 1985.* These data have been excerpted from EPA's 1982 Air Quality and Emissions Trends Report and from a current draft of the 1985 version of the same report. EPA does not have summaries of the highest and third highest values since such calculations are not used for making determinations of attainment.

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*Retained in committee files.

FEES (1)

Question: Last year in response to reconciliation instructions from the Senate, this Committee reported legislation requiring EPA to collect $20 million per year in fees on pesticides registrations, ocean dumping permits and other activities. Although that provision was dropped in conference, you have since proposed regulations for some fees and I notice in the OMB passback projections for significant fee revenues in the future. Would you share with the Committee your thoughts on fees and the role that they should play in your budget?

Answer: The collection of fees for services that the Federal Government provides has been authorized for a number of years. In the Independent Offices Appropriations Act (IOAA) of 1951, Congress stated that "each service or thing of value provided by an Agency ...is to be self-sustaining to the extent possible". Bureau of the Budget Circular A-25 (September, 1959) reinforced this policy and later reiterated (OMB Circular A-25, Revised: September, 1985) that reasonable charges should be made for services "that convey special benefits to recipients beyond those accruing to the general public". Following up on the policies set in those two branches of the Government, EPA is developing regulations for some fees and is working to examine other fees the Agency could potentially collect.

It is of utmost importance that the Agency is able to retain the fees it collects. To this end, EPA has prepared and is about to submit legislation authorizing EPA to retain fees. The proposal calls for the establishment of a Special Fund within the Treasury to earmark Agency fee collections. These fees would then be available through appropriations actions to the Agency programs responsible for their collection.

Question: It seems to me that Congress must be involved in the design of these fees. For one thing, the law needs to be changed so that the Agency actually benefits from the revenue it collects. Under current law those revenues would just go into the general fund. Would you prepare and send us legislation that could be used as a departure point in our future discussions on fees?

Answer: OMB recently approved a legislative proposal submitted by the Agency. Under the proposed bill, certain fees -- for services relating to pesticides, the review of chemicals, regulation of mobile sources of air pollution, ocean disposal, and quality assurance products and services -- collected by the Agency would be deposited into a Special Fund in the U.S. Treasury. These funds would then be available for appropriation, to remain available until expended, to carry out only the activities for which the fee is charged. The bill should be sent to Congress within the next week or so.

FEDERAL EMPLOYEE RETIREMENT

Question: Mr. Thomas, your 1988 budget includes a $44 million item for the new employee retirement system. Because your operating budget does not increase at all and because this was a brand new budget requirement, you have had to reduce other programs in the Agency by $44 million to provide these funds. It is my understanding that OMB assigned this amount to EPA based on some formula they devised. Frankly, I have my doubts that the amount needed is as high as $44 million. I know the Appropriations Committee will be watching it closely. But could you provide us some information on how the $44 million figure was arrived at and whether the budget office at EPA thinks it is a reasonable estimate of the contribution necessary for 1988?

Answer: I should clarify that the $44.3 million that you refer to as part of our request for the Salaries and Expenses Appropriation also includes the increased costs (in 1988) attributable to the 3% Federal payraise that took effect in 1987. For 1988, we estimate the additional Agency costs for the new retirement system to be $29.1 million and increased costs for the payraise to be $15.2 million.

We think that this $44.3 million request, covering both payraise and the new retirement costs, is reasonable. We plan to monitor the costs of implementing the new retirement system carefully.

For the new retirement system, we arrived at these projected costs by using actual and anticipated workforce and payroll estimates. In estimating participation in the new Federal Employees Retirement System, we used the number of employees automatically converting to the new system as of January 1, 1987 plus an estimated number of persons covered under the Civil Service Retirement System who will switch to the new system. We assumed that 40% of those covered by the Civil Service Retirement System will switch to the new system. This is the assumption used by both the Congressional Budget Office and the Office of Management and Budget in estimating the number of persons who will switch to the new system.

FEDERAL EMPLOYEE RETIREMENT

Question: And let me ask this: Suppose that all of the $44 million is not needed to pay for contributions to the retirement system. Will the dollars remain available to the Agency for reallocation to other needs?

Answer: The funds for both payraise and the new retirement would be placed in the Agency's account covering personnel compensation and benefits. If the $44.3 million exceeded the actual costs for payraise and retirement, funds could be used to cover additional personnel costs. We would follow Congressional reprogramming requirements before making any changes with the funds in this account.

DEADLINES

Question: Mr. Thomas, the laws that we have recently enacted contain many deadlines for the promulgation of regulations and other actions to be taken by EPA. We include these deadlines to assure that the requirements we authorize are actually carried out. On occasion EPA misses a deadline unavoidably, but often you miss deadlines because you have not budgeted sufficient resources to get the job done on time. I think of the regulations to prevent leaks from underground storage tanks which by law are to be final this coming Sunday morning, February 8. You won't make that deadline. You haven't even sent the proposed regulations to OMB for review yet. Do you have a list of all the deadlines that Congress has imposed on the Agency with a projection of those that will be met and those that will be missed?

Answer: I am personally concerned about meeting Congressionally mandated deadlines. I can assure you that EPA has made and will continue to make every effort to meet these deadlines. I have developed this year's budget with a view towards meeting mandated deadlines. With regard to the Underground Storage Tank regulations, EPA is maintaining the schedule that was outlined to Congress last year at this time. Under this schedule, the Agency will promulgate UST standards at one time (1988) rather than on a staggered schedule.

Currently, EPA has a regulatory tracking system in place, which tracks statutory requirements for regulation development. Development is underway for a comprehensive system to track all statutory deadlines. Once this new system is implemented, it will allow me to communicate with Congress regularly about our progress in meeting Congressionally mandated deadlines.

ACCURACY OF EMISSIONS DATA

Question: Please provide a statement of the level of accuracy of the air pollution emissions data collected by EPA and the States. That is, is the total data set, or any individual measurement, accurate to plus or minus 50 percent, 25 percent, etc? Also, is the degree of confidence 90 percent or some other figure?

Please state what commitment of money and personnel would be required to improve the data collection to a high degree of confidence and accuracy.

Answer: The quality and comprehensiveness of emission inventories vary greatly among pollutants as well as among agencies, so it is difficult to provide a definitive statement of their overall accuracy. In general, emission inventories for criteria pollutants (i.e., those for which National Ambient Air Quality Standards have been set) are more complete and accurate than are inventories for toxic pollutants. This is true because States are required to have current, accurate, and comprehensive criteria pollutant inventories, particularly in nonattainment areas, and also because the procedures for estimating emissions of criteria pollutants are more advanced than for toxic pollutants. There are currently no EPA requirements for States to have inventories of toxic pollutants. Many States are compiling such inventories or have plans to do so.

Agencies use numerous methods and procedures to calculate or estimate emissions from various sources, each method having a particular level of uncertainty. The best approach is for States to acquire emissions data directly from a facility or to perform a source test or material balance. Material balance data are generally considered to be accurate to within about ±25 percent. Source tests are more representative of short-term emissions and are usually very accurate if the test is done in accordance with established procedures.

In cases where source test or material balance results are not available, emission factors are generally used. Emission factors are average emission rates (per unit of activity level) for specific source categories. These emission factors are developed and published by EPA for use in various emission inventory applications. The accuracy of emission factors can vary tremendously (e.g., from 50 to 200 percent) when applied to a single source, depending on the type of process or operation.

Emission factors provide more accurate results when used to estimate the emissions of a large number of similar types of sources, as is done in an area-wide inventory. As an example, the uncertainty associated with applying a nitrogen oxide emission factor to a single coal fired boiler may be 50 percent, but may drop to 15 percent when used to estimate the total emissions of 100 such boilers.

The quality of emission inventories could be improved if emission factors were available for all sources and for all pollutants. A multi-year program involving 3.0 workyears and $500,000 per year would provide new and better emission factors for many important source categories. Currently, comprehensive up-to-date inventories are available or soon will be available for the pollutants of greatest concern. In the last two years, as part of the National Acid Precipitation Assessment Program, States have been provided approximately $1.1 million on a one-time basis to update their Current Year 1985 emission inventories for sulfur oxides, nitrogen oxides, and volatile organic compounds. During this same time, EPA has also spent about $300,000 for quality assurance of these data bases. This effort has resulted in fairly good inventories for these three pollutants.

One of the essential and most important components of a good national emissions inventory is access to a standardized and modern data entry, storage, and retrieval system.

Within the past year, EPA has begun to develop specifications for a computerized (Aerometric Information Retrieval System (AIRS) that would fully integrate the emissions and compliance data needs of both the Agency and State agencies. As envisioned, the AIRS system would provide direct access to EPA's modern hardware and data management systems and would significantly upgrade both the current EPA and State capabilities.

FUNDING FOR TSCA

Question: Please state what sums are included in the budget for implementing the Toxic Substances Control Act. Please include all amounts provided for support of the program, whether direct or indirect, including laboratory research and regional office staffing. Please compare the requested amount with amounts appropriated by Congress for each of the fiscal years since 1976.

Answer: Below is a comparison of the President's budget submissions and the final operating plan for the Toxic Substances media from 1976 to 1987.

(dollars in thousands)

Year	Final Operating Plan	President's Budget	Difference (OP-PB=Diff.)
1976	$ 7,955.8	$ 8,059.3	$ (103.5)
1977	8,304.6	7,367.0	937.6
1978	25,173.2	24,258.0	915.2
1979	55,420.1	56,732.0	(1,311.9)
1980	91,040.8	103,316.0	(12,275.2)
1981	105,827.8	105,838.8	(11.0)
1982	76,103.8	97,816.3	(21,712.5)
1983	68,403.2	68,604.0	(200.2)
1984*	119,450.7	66,675.7	55,775.0
1985	85,664.1	79,642.1	6,022.0
1986*	151,483.7	93,723.4	57,760.3
1987	94,528.9**	89,327.7	5,201.2

* Two years include $50 million in the final operating plan to fund the Asbestos School Hazard Abatement Act (ASHAA).

** Operating Plan as of 02-10-87. Does not include $47.5 million of Asbestos-in-Schools Loan and Grants funding proposed for rescission.

TSCA REPEAL

Question: If the Toxic Substances Control Act (TSCA) were repealed by the Congress prior to October 1, 1987, how much of the amounts requested would be required for the program phaseout during fiscal year 1988. Also, please state whether repeal would require reductions in force, or whether TSCA personnel could be moved into other substantive areas within either the Office of Toxic Substances or other Agency programs.

Answer: We are not in a position to ascertain either the cost or the effect on personnel levels that might result from a repeal of TSCA.

VOC MONITORING

Question: Please list all areas which routinely monitor for VOCs and the cost of each of these monitoring programs, as well as other details (e.g. number of monitors, years in place, types of monitors, etc.). Please estimate the cost of establishing a nationwide network of these monitors. Also, would it be desirable, in your judgment, to establish such a program and, if so, would legislation be required?

Answer: EPA has not required routine monitoring for volatile organic compounds (VOCs). Some State and local agencies (primarily in California) have monitored ambient levels of VOCs in the past, but the techniques used were of uncertain validity.

Typically, prior VOC (NMOC--Non-Methane Organic Compound) monitoring involved a capitol cost of approximately $10,000 per site plus an annual operating cost of an additional $10,000 per instrument.

EPA has recently established a special purpose NMOC monitoring program in selected urban areas to assist us in developing our ozone control strategy. The approximate cost of this special purpose monitoring program is $15,000 per site per year.

If we were to establish a nationwide network of NMOC monitoring sites in the 30 largest metropolitan areas of the nation (an average of two sites per area), the program would cost approximately one million dollars per year.

We are currently considering the desirability of establishing such a program on a routine basis, but we have not yet reached a decision on the matter. If we decide that such a monitoring program is desirable, we could initiate it within our current legislative authority.

PROJECTIONS OF FUTURE OZONE LEVELS

Question: Please state whether States are required, as part of an approved SIP, to include a mechanism for projecting future levels of ozone and precursor pollutants, by SMSA or otherwise. Please indicate each State which has included such a provision in its SIP and, for each such State, please provide a projection of emissions sources, growth, and levels for as far into the future as such estimates have been made. Provide this information in a tabular form, arrayed by SMSA, county or other appropriate unit.

Answer: The 1982 ozone SIP submittals contained some basic information about present and future volatile organic compound (VOC) emissions. The following table includes selected information on projected future levels of VOC emissions in many of the areas which obtained an extension until 1987 to attain the ozone standard. (Not included in the table are 1982 attainment areas, since these did not have to submit additional plans and inventories in 1982. Except for California and Colorado, this information represents a base year of 1980. Great care should be observed in using these projections since significant changes in both emissions and air quality have most likely occurred. It should also be noted that data in this table are very preliminary for areas, such as Chicago, Detroit, and a few others, where the 1982 SIP submittals were delayed substantially. These figures were compiled for internal use at EPA and were not completely quality assured for public release because of these inherent problems. Some of the numbers are apparent underestimates when compared to smaller, less populated areas. Los Angeles, for example, appears to be incomplete and will have to be updated as part of any EPA post-1987 ozone planning initiative.

TOTAL VOC EMISSIONS
(Kg/day)

EPA Region	State	Area	1980 Base Year VOC Emissions[1]	Projected 1987 VOC Emissions
I	CT	Hartford	108,282	64,030
		New Haven	100,954	61,405
	MA	Boston	542,343	319,716
		Worcester	111,407	61,979
		Springfield	133,364	75,322
	RI	Statewide	168,817	149,111
II	NY/NJ/CT	New York	2,127,009	1,231,946
III	DC/MD/VA	Washington	306,000	166,934
	MD	Baltimore	318,839	160,000
	PA/NJ/DE	Philadelphia/Trenton/ Wilmington	882,750	521,261
	PA	Allentown	59,491	38,240
		Pittsburgh	371,477	219,860
IV	KY/IN	Louisville	168,708	114,499
	TN	Nashville	109,080	69,195
V	IL/IN	Chicago[2]	1,479,389	766,162
	OH/KY	Cincinnati[2]	335,415	219,116
	OH	Cleveland[2]	444,990	286,548
	MI	Detroit[2]	486,198	391,306
	WI	Milwaukee	336,379	231,440
VI	TX	Houston	231,250	121,854
VII	MO	St. Louis	521,804	349,344
VIII	CO	Denver	183,990	99,707
	UT	Salt Lake City	142,153	78,898
IX	CA	Fresno	142,892	87,096
		Los Angeles	1,361,784	679,531
		Sacramento	101,521	63,780
		San Diego	277,165	168,930
		San Francisco	664,108	390,118
		Ventura/Oxnard	92,993	56,159
X	OR	Portland	198,430	145,130
	WA	Seattle	356,999	225,689

[1] California areas--base years-1978 and 1979; Denver--1976 base year

[2] Information obtained from incomplete SIP actions

PERMITS AND FEES

Question: How many permits are issued, or renewed, annually pursuant to the Clean Air Act or State level air pollution programs for sources of each of the criteria pollutants. Please aggregate this data according to source size and, if possible, type.

Answer: EPA does not routinely collect this information. However, EPA recently prepared a paper that addressed this topic and presented it at the Air Pollution Control Association meeting held in June, 1986. This paper is attached for your information.

Question: What would be the total annual income if permit fees were collected at the following rates: $1,000 per ton of emissions per year; $500 per ton; $100 per ton; $50 per ton; and, $10 per ton (stationary sources only)? If possible, provide not only a total, but subtotals on a pollutant-by-pollutant basis (e.g., sulphur dioxide; oxides of nitrogen, etc.).

Answer: We can generate an estimate of total income by multiplying emissions for stationary sources by the proposed fee and making some assumptions on coverage. Table I, below reflects cost estimates, by pollutant, using this approach.

TABLE I

($ in millions)

Pollutant	Emission Rates From Point Sources* Tons/Year	Income Estimate By Rate				
		$1,000/ton	$500/ton	$100/ton	$50/ton	$10/ton
Particulates	2,900,000	$ 2,900.0	$ 1,450.0	$ 290.0	$ 145.0	$ 29.0
Sulfur Oxides	22,500,000	22,500.0	11,250.0	2,250.0	1,125.0	225.0
Nitrogen Oxides	11,100,000	11,100.0	5,550.0	1,110.0	555.0	111.0
Volatile Organic Compounds	3,500,000	3,500.0	1,750.0	350.0	175.0	35.0
Carbon Monoxide	5,500,000	5,500.0	2,750.0	550.0	275.0	55.0
Lead	6,000	6.0	3.0	.6	.3	.06

* 1986 emission rates from stationary sources (100 tons/year or greater)

There are, however, several problems in the cost estimate presented in Table I. First, in order to make an accurate estimate of total income from an emission fee, a more detailed definition of the fee structure would be needed. Some examples of confounding issues are: whether the fee is based on actual or allowable emissions; the emission rate used as a cutoff for applicability and how this cutoff is applied; any exemptions; and whether all sources in the nation are affected, regardless of location.

Second, in addition to the fee structure, the market responses to fees must also be taken into account. These include: (1) affected sources will tailor their permits to reduce fee requirements (e.g., two 99-ton permits under different corporate entities rather than one 198-ton permit); and (2) the impact of quantity adjustments (e.g., the increased costs to industry and subsequent price increases will reduce demand for goods and reduce emissions).

Finally, emissions from stationary sources are expected to decrease as new sources replace older ones and as additional rules are adopted and implemented.

RURAL OZONE ATTAINMENT

Question: Although urban non-attainment of the ozone standard is currently attracting considerable attention, there is concern over rural ozone levels among many Members. Has EPA or any other government agency developed models to predict how reductions of VOC's, oxides of nitrogen or other pollutants would affect rural ozone levels? If so, what mix of reductions would most effectively lower rural ozone levels? What commitment of money and personnel would be required to test such an ozone model (or develop and test it, if none exists) and how soon could this be completed?

Answer: EPA is currently testing and applying two regional scale models to the northeast, southeast, and midwest portions of the country. The models are the Regional Oxidant Model (ROM) developed by EPA's Office of Research and Development and the Regional Transport Model (RTM-III) developed by Systems Applications, Inc. The models are being used in support of Agency programs concerning (1) the review and impact of ozone standards and (2) the development of a national control program for emissions (including reactive pollutants) from hazardous waste treatment storage and disposal facilities (TSDFs). For both programs, variations in volatile organic compound (VOC) emissions and their effect on ozone levels are being considered. However, the focus of neither program is such that specific control alternatives are being developed that will allow air quality standards to be attained in rural areas. Examination of nitrogen oxides and a specific mix of reductions that would be most effective will not be identified. Rather, the percent change in ozone concentrations due to constant county-wide changes in VOC emissions or reductions in VOCs from TSDF sources are being considered for a few selected meteorological scenarios. Preliminary results of these analyses are scheduled to be available by mid-summer, 1987. A formal report on the accuracy of concentrations estimated by ROM will be available by the end of 1987.

The resources and time required to complete the detailed tests and control strategy assessments suggested by the question are difficult to assess without the development of a formal program plan. However, it can be noted that preliminary results for the two programs described here will require about 18 months to complete, with the Agency committing resources of approximately two workyears, $500,000 of extramural funds, and $300,000 of ADP funds.

ROLE OF OTA IN LEGISLATION DEVELOPMENT

Question: As in the past, it is likely that the Congress will rely on the Office of Technology Assessment for technical advice as legislation is developed. During previous Congresses, the OTA staff has been able to obtain information from government agencies as if it were a Committee of the Congress (e.g. coal supply data from the Department of Energy). Will the Environmental Protection Agency provide information and assistance on this basis as well and, if so, what special arrangements, if any, must be made to implement this policy?

Answer: EPA's policy is, and has been, to provide information to OTA upon request as provided in 2 U.S.C §475(d). Where confidential business information is requested, the request should be submitted in writing by the chairman of a committee or subcommittee of Congress, as provided by EPA's regulations at 40 C.F.R §2.209(b).

HEALTH EFFECTS INSTITUTE BUDGET

Question: Please provide a copy of the complete budget for fiscal years 1986 and 1987 for the Health Effects Institute, as well as a list of all seminars, briefings, or other similar meetings conducted by the Institute during calendar year 1986.

Answer: The 1986 and 1987 budgets for the Health Effects Institute (HEI) are presented below:

Dollars in Millions

	FY 1986	FY 1987
EPA	$3.0	$3.0
Auto Industry	$3.0	$3.0
TOTAL	$6.0	$6.0

We have attached a copy of the financial statement for HEI for fiscal year 1986, taken from its 1986 annual report. This statement includes a detailed break-out of the Institute's budget for fiscal year 1986 and a synopsis of funding from its inception to the present. The research areas supported by these resources are listed in the attached Research Program Summary.*

Also attached is a list of meetings, briefings, and workshops held by HEI during 1986.

Question: If possible, also provide a list of research projects supported in part or whole by the Institute, together with a report of their results.

Answer: Attached to this response is a current list and synopsis of research projects funded by the Health Effects Institute. To date, five projects have been completed. Final reports on these projects were recently submitted to Congress. We will be receiving additional copies of these reports soon and would be happy to forward them to you when they arrive.

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*Retained in committee files.

Financial Statements and Auditors' Report

To the Board of Directors of The Health Effects Institute:

We have examined the balance sheets of The Health Effects Institute (a District of Columbia nonprofit corporation) as of June 30, 1986 and 1985 and the related statements of activity and changes in fund balance and changes in cash balance for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of The Health Effects Institute as of June 30, 1986 and 1985 and the results of its activities and the changes in its cash balance for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Our examinations were made for the purpose of forming an opinion on the basic financial statements taken as a whole. Exhibit I is presented for purposes of additional analysis and is not a required part of the basic financial statements. This information has been subjected to the auditing procedures applied in our examination of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

August 8, 1986
Boston, Massachusetts

Arthur Andersen & Co.

Balance sheets

For the years ending June 30	1986	1985
Assets		
Cash	$ 709,253	$ 943,002
Grants and contributions receivable (Note 1)	617,692	421,691
Advances on research contracts	49,533	83,324
Office equipment, at cost, less accumulated depreciation of $49,638 and $29,505 in 1986 and 1985, respectively (Note 1)	57,110	65,064
Prepaid insurance and other assets	8,365	14,963
	$1,441,953	$1,528,044
Liabilities and fund balance		
Accounts payable		
Research grants	$ 255,175	$ 203,866
Other	32,290	64,007
Accrued expenses:		
Research grants	878,950	857,074
Other	59,121	64,327
Deferred support (Note 1)	216,417	242,477
Commitments (Note 2)		
Fund Balance (Note 1)	—	96,293
	$1,441,953	$1,528,044

The accompanying notes are an integral part of these financial statements.

ARTHUR
ANDERSEN
&CO

Statements of activity and changes in fund balance

For the years ending June 30	1986	1985
Revenue and support (Note 1)		
Grants and contributions	$6,833,341	$5,988,120
Interest income	—	50,735
Total revenue and support	$6,833,341	$6,038,855
Program, general and administrative expenses		
Scientific services		
Research contracts	$5,053,278	$4,698,132
Consultants	451,638	288,766
Salaries and employee benefits	613,937	433,110
Travel	267,426	210,394
Printing and publication	203,500	33,279
Rent and utilities	103,910	83,133
Office supplies and expenses	125,679	126,566
Professional fees	110,266	123,234
Total program, general and administrative expenses	$6,929,634	$5,996,614
Excess (deficit) of revenue and support over expenses	$ (96,293)	$ 42,241
Fund balance, beginning of period	96,293	54,052
Fund balance, end of period	$ —	$ 96,293

Statements of changes in cash balance

For the years ending June 30	1986	1985
Cash was provided by:		
Grants, contributions and interest received	$6,611,280	$5,653,963
Cash was used for:		
Cash expenditures for operating expenses	$6,832,850	$5,115,482
Purchases of office equipment	12,179	54,419
Total uses of cash	$6,845,029	$5,169,901
Increase (decrease) in cash balance	$ (233,749)	$ 484,062

The accompanying notes are an integral part of these financial statements.

Notes to financial statements
June 30, 1986

Note 1: Operations and accounting policies

The Health Effects Institute (the Institute) is a nonprofit organization incorporated on May 20, 1980, for the purpose of researching and reporting on the health effects of motor vehicle emissions. The organization is exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code.

Support for the Institute consists principally of unrestricted contributions from motor vehicle engine manufacturers (Industry) and grants from the U.S. Environmental Protection Agency (EPA). It is the intent of the Institute that Industry and the EPA share equally in the overall support of the Institute's activities.

The following is a summary of the significant accounting policies applied by the Institute in the accompanying financial statements.

(a) Revenue and support

Grants received and receivable by the Institute from the EPA are deemed to be earned and are reported as support to the extent that expenses have been incurred during the period for the purposes specified by the EPA. The difference between funds received from the EPA and expenses incurred which are allocable to the EPA results in deferred or accrued support.

Industry contributions are collected quarterly and in advance based upon anticipated expenditures for the succeeding quarter. Contributions are reported as support in the fiscal year to the extent earned as described above. Those contributions specified for future fiscal year expenditures are deferred and reported as support in the period to which they relate.

The Institute has received grants and contributions to be used for the establishment, operation and administration of its research program as follows:

	EPA	Industry
Cumulative support received from inception through June 30, 1985	$5,062,253	$5,062,250
Accumulated interest	—	96,293
Adjusted cumulative support received from inception through June 30, 1985	$5,062,253	$5,158,543
Add–Support received during fiscal 1986	3,464,817	3,584,941
Cumulative support received since inception	$8,527,070	$8,743,484
Less–Deferred support	—	216,417
Cumulative support recognized from inception through June 30, 1986	$8,527,070	$8,527,067
Less–Cumulative expenses since inception	8,527,070	8,527,067
Cumulative support in excess of expenses	$ —	$ —

The Institute's funding from the EPA consists of grants in the form of a letter of credit. A letter of credit is an obligation by the U.S. Treasury for funds for a specific amount. These funds are held by the government until they are drawn upon by the Institute as disbursements are made. The Institute fully utilized Grant I in its entire amount of $3,550,000 before its expiration on June 30, 1985. In September 1984, Grant II was awarded to begin on October 15, 1984 and expire in October 1986. Prior to June 30, 1985, total funding in the amount of $5,400,000 had been awarded. In June 1986, the EPA awarded the Institute $3,000,000 in supplemental funding under Grant II and extended the expiration date to June 30, 1988 with the prospect of further funding within that period. As of June 30, 1986, $4,574,412 has been disbursed resulting in an unexpended balance of $3,825,588. Of this unexpended balance, $402,658 has been committed to cover the EPA's support for the accounts payable and accrued expenses at June 30, 1986.

(b) Fund balance

In prior years, the fund balance resulted from interest earned on Industry contributions. Because this interest had been offset against Industry billings, fiscal 1986 revenue has been adjusted to reflect this offset. The effect was to eliminate the beginning fund balance of $96,293.

Interest earned on Industry contributions during fiscal 1986 has been classified as deferred support and will be applied against fiscal 1987 Industry billings.

(c) Office equipment

Office equipment is stated at cost and is depreciated using the straight-line method over its estimated useful life of five years.

(d) Reclassification of prior year amounts

Certain prior year amounts have been reclassified to conform to the current year's presentation.

Note 2: Commitments

(a) Leased office space

The Institute currently leases its office space under an agreement expiring in November 1987. Minimum rentals under this lease will be $93,076.

(b) Research contracts

As of June 30, 1986, a total of $7,428,070 has been committed by the Institute to fund program-related research contracts, of which $5,190,970 has been expensed through yearend. Subsequent to yearend, an additional $375,260 was committed to further research.

Note 3: Pension Plan

The Institute maintains a defined contribution pension plan covering all of its employees. Under the provisions of the pension plan, the Institute makes annual contributions equal to 8% of the salary paid to each participant. Pension expense for the years ended June 30, 1986 and 1985 was $38,827 and $26,996, respectively.

Exhibit I: Statement of actual vs. budgeted expenses for EPA Grant II

			Amount Expensed		
		Authorized budget	1986	Through 1985	Amount remaining
Grant II					
	Personnel	$ 553,208	$ 248,666	$ 179,358	$ 125,184
	Fringe benefits	117,360	58,302	27,736	31,322
	Travel	185,095	101,866	83,229	—
	Contractual	6,766,587	2,584,141	1,041,508	3,140,938
	Other	777,750	471,842	180,422	125,486
		$8,400,000	$3,464,817	$1,512,253	$3,422,930

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February 25, 1987

Ms. Karen Morehouse
Program Analyst
Office of Research Program Management
Program Coordination Staff
Environmental Protection Agency
401 M Street, SW
Mail Drop RD - 674
Washington, DC 20460

Dear Ms. Morehouse:

Enclosed is the information you requested regarding HEI meetings held in calendar year 1986.

Please let me know if I can be of further assistance.

Sincerely,

Judith A. Zalon

Judith A. Zalon
Assistant Director for
Administration

JAZ:mc

Enclosure

HEALTH EFFECTS INSTITUTE

Meetings held in Calendar Year 1986	**Attendees**	**Purpose**
Methanol Workshop December 1, 1986	20 attendees: HEI Staff, Committee Members, industrial and government sponsors, experts in the field	To discuss the potential of chronic health effects of long-term exposure to methanol
Epidemiology Workshop November 20-21, 1986	65 attendees: HEI Staff, Committees, industrial and government sponsors, experts in the field, interested others from public interest community	To investigate linkages between biological markers of disease and traditional methods of epidemiology
Science Advisory Board Meeting July 11, 1986	SAB members, HEI Staff members	To describe HEI, the research program and relevance
Ozone Review Panel November 14, 1986	HEI Staff, Research Committee members, experts in the field	To review applications submitted under the 1986 RFA
Diesel Review Panel November 24-25, 1986	HEI Staff, Research Committee members, experts in the field	To review applications submitted under the 1986 RFA
Future Strategy Meeting September 19, 1986	HEI Staff, Committee Members, Board members	To approve the outcome of HEI Strategy document and foward manuscript, Air Pollution, Automobile and the Public Health to NAS press

HEALTH EFFECTS INSTITUTE

Meetings held in Calendar Year 1986	Attendees	Purpose
Research Committee Meetings		
March 24, 1986	Research Comm. HEI Staff	To discuss future research plans
June 3-4, 1986	Research Comm. HEI Staff	To discuss and finalize the 1986 RFAs
September 4-5, 1986	Research Comm. HEI Staff Representatives from EPA	To discuss HEI research projects
December 11-12, 1986	Research Comm. HEI Staff Representatives from auto industry importers	To review applications received in response to RFAs issued in July 1986
Review Committee Meetings		
February 15-16, 1986	Review Comm. HEI Staff	To review HEI projects completed in 1985
July 10-11, 1986	Review Comm. HEI Staff	To review HEI projects completed in 1985 and 1986
October 23-24, 1986	Review Comm. HEI Staff	To review HEI projects completed in 1985 and 1986
Annual Conference February 16-19, 1986	HEI Staff, Committees, Board Members, industrial and government sponsors, HEI funded investigators, representatives from public interest groups and interested others	To provide a forum for discussion of HEI's present and future research program

CWA - SECTION 311 FUND

Question: Please provide a statement of the current status of the Fund maintained under Section 311 of the Clean Water Act. Specifically, please include the following: the current balance in the Fund; a list of the spills to which the Fund has responded in the last five years; the identities of the parties believed to be responsible for each of those spills; a statement of the response costs collected for each of those spills and a statement of whether such costs were paid pursuant to administrative settlement, judicial settlement, or court decision; the number of cases referred to the Department of Justice; the number of referrals prosecuted to trial by the Department of Justice; the costs incurred for restoration of natural resources and the amounts collected for same; the approximate amounts of natural resource damages not restored; and, the number of the spills which occurred in waters not within the jurisdiction of the United States or a State.

Answer: The U.S. Coast Guard is responsible for administering the Trust Fund under Section 311 of the Clean Water Act. We have contacted responsible officials within the Coast Guard, who request that these questions be referred to the Coast Guard for response.

Questions Submitted for the Record by Senator Chafee

OZONE DEPLETION/GREENHOUSE EFFECT ISSUES

Question: For FY 1987, Congress appropriated about $7 million dollars for stratospheric ozone protection activities and greenhouse effect studies.

Would you provide a detailed accounting of how that money is being allocated within the agency and how it is being spent?

Would you also provide a similar detailed accounting of how the money being requested for FY 1988 will be spent?

Answer: In addition to the $7.1 million added by Congress in FY 1987 (of which $6.5 million was extramural), the Agency's base program for stratospheric ozone and greenhouse effect studies was 10.2 workyears and $3.0 million, resulting in a total program of 21.2 workyears and $9.5 million extramural. The allocation of these resources is summarized in the table below, together with the categories of activities for which the funds will be spent.

Resources for Stratospheric Ozone Protection
and Greenhouse Effect

Office	FY 1987 Current Estimate		FY 1988 Request		Activities
	FTEs	Ext ($ M)	FTEs	Ext ($ M)	
Office of Air and Radiation	7.0	$3.0	5.0	$0.0	Policy analysis, regulation development, international protocol developments
Office of Policy, Planning and Evaluation	9.0	$3.1	7.0	$0.9	Policy and economic analysis
Office of International Activities	1.2	$0.0	1.2	$0.0	International protocol development
Office of Research and Development	4.0	$3.4	4.0	$2.9	Characterization, effects, emission control research, and Exploratory Grants in FY 1987
TOTALS	21.2	$9.5	17.2	$3.8	

FTEs = Workyears
Ext = Abatement, Control and Compliance and Research and agency agreements.

ACID RAIN RESEARCH

Question: Have you worked with the Swedes, Swiss, and Germans on Acid Rain research?

Answer: We have worked (and continue to work) with the Federal Republic of Germany and Sweden on several areas of acid rain research. For example, with the Federal Republic of Germany, we have worked on a tracer experiment study dealing with sulfur dioxide and ozone. In addition, we have worked on a set of studies in the forest effects research area.

With Sweden, we are working on a study concerning the potential acidification of surface waters by nitrogen and a study involving an exposure network for materials effects research.

We have not worked with the Swiss on acid rain research.

Question: How much is being spent, or allocated to, cooperation with other countries?

Answer: The following is a listing of research that EPA has funded with other countries in recent years:

- Tracer experiment with Germany --- In FY 1985, $50,000 was spent on this study.
- Forest effects research with Germany --- In FY 1985, $71,000 was spent on a set of studies.
- Surface water acidification study with Sweden: In FY 1986 and FY 1987, $40,000 is being allocated to this project each year.
- Materials effects research with Sweden --- In FY 1987 and FY 1988, $30,000 will be allocated in each year.

OZONE DEPLETION/GREENHOUSE EFFECT ISSUES

Question: In a letter dated December 8, 1986, you reported to us that, at your direction, your staff was developing plans to conduct the climate change studies that we requested. I appreciate that and applaud your decision. In that same letter, you stated that you "expect to be able to provide a more complete plan of action in the next month or so".

When can we expect to see that "plan of action?"

Answer: The plan of action that my staff is preparing will address both the studies that you requested and a longer term view to identify overall research needs, and an integrated research effort in the areas in which EPA has particular expertise. The plan will be prepared by the end of this month.

SUPERFUND/SITING AMENDMENT

Question: As you know the Superfund amendments included a provision on the siting of hazardous waste facilities. What have you done to notify each Governor that the clock is ticking -- that they have only three years from last October to make siting decisions?

Answer: We have organized a group of State and EPA officials to implement the siting provision. We have met with the State associations, including Association of State and Territorial Solid Waste Management Officials, National Governors Association, National Council of State Legislatures and the Consortium of State Hazardous Waste Siting Authorities to get their input and offer our assistance in carrying out their responsibilities under the provision. We are in the process of drawing up a work plan for implementing the project, and a cooperative agreement with NGA to carry out the work plan. We expect to issue a notification letter to each Governor shortly.

Questions Submitted for the Record by Senator Durenberger

DEADLINES (2)

Question: Let me give you a specific example of the deadline problem. The 1984 RCRA amendments require you to issue regulations to prevent, detect and correct leaks from underground storage tanks. By law, those regulations are to be effective this Sunday, February 8...30 months after enactment.

As it happens you picked the deadline in this case. You were representing EPA at the conference in later 1984 when the 30 month deadline was picked. And you stated to the conference committee that you thought this was a reasonable amount of time to prepare the regulations.

But you haven't even proposed regulations yet. If we are lucky they might be in place a year from now. I know of no impediment...other than lack of resources and commitment...that has prevented you from meeting this deadline. The Congress has given you every dollar that you have asked for to develop these regulations...and more. You just haven't asked for enough to do the job. Why not?

Answer: Yes, the regulatory development work has taken longer than our original estimate, but not because of a lack of resources. The regulation is going to be proposed next month. We have very carefully considered and staffed out a variety of approaches to these regulations and included each in our preamble. The sheer size and diversity of the Subtitle I regulated community and of various State and local regulatory programs, of necessity, made data and information collection and analysis very time-consuming.

In addition, we made a strategic decision to combine the development and issuances of all three regulations together, because so much of the research and many of the procedural steps were the same for new and existing tanks, both petroleum and chemical. The table below shows the effect of this strategy.

Legislative Requirement	Legislative Deadline	Effective Date
Petroleum - New and Existing Tanks	May 1987	May 1988
Chemical - New Tanks	Nov. 1987	May 1988
Chemical - Existing Tanks	Nov. 1988	May 1988

We believe that as a result of the extensive work we have done, we are proposing a regulation that is both protective of human health and the environment, and that can be carried out in the 50 States.

OZONE NONATTAINMENT

Question: Mr. Thomas, my next question is on ozone nonattainment. In the Clean Air Act Amendments of 1977, the Congress established a deadline of December 31, 1987 for all areas of the United States to be in compliance with the ambient air quality standards. As we approach that date it appears that as many as 60 to 75 regions in the U.S. will not meet the standard. People are watching you closely for signals on how EPA intends to deal with noncompliance. But they are not getting strong signals. You have not made a decision on Stage II. You are not calling in SIPs. You are not moving to regulate additional categories of hydrocarbon emissions. The trade press is saying that it is fourth down and long yardage and you have dropped back into punt formation. Are you punting on the ozone nonattainment issue, Mr. Thomas?

Answer: By no means is the Environmental Protection Agency punting on the ozone nonattainment issue. During the past year, no issue has taken more of my time than the problem of ozone nonattainment beyond the December 31, 1987, deadline. I now have a clearer understanding of the impact of ozone on public health and welfare, the pollutant interactions that result in ozone formation, the extent of the problem both with respect to concentrations and area, the types of controls that have been applied to date, the effectiveness of those measures and the kind of controls and measures that would have to be applied in the future if we are to ultimately attain the standards in all areas. Much of what I have learned on this complex issue will be shared with the Congress when I testify on February 19, 1987. In order to stimulate discussion on the type of control strategy that might be appropriate for post-1987 ozone nonattainment areas, I proposed a four-part program at the annual meeting of the Air Pollution Control Association in Minneapolis last June. I have had many discussions with many groups including industry, environmentalists, and air pollution control officials relative to the strengths and weaknesses of this approach, as well as other approaches. As a result of the knowledge I have gained over the past year on the nature and extent of the problem, its amenability to control, and the potential impacts of various control strategies, I hope to soon be in a position to initiate the development and implementation of a strategy to continue progress toward resolving the continuing problem of ozone nonattainment.

OZONE NONATTAINMENT

Question: The Clean Air Act imposes a construction ban on those regions of the nation which are not in compliance with the ozone standard after December 31. Providing any relief...and I am sure that there are some in the Congress from those areas who will ask for relief...will require an amendment to the Clean Air Act. I have not discussed this with all of my colleagues, but it seems to me that we are unlikely to pass any amendments to the Clean Air Act without also including an acid rain cointrol program. The President might sign such a bill by the first of next year, but assuming for a moment that he does not, how are you preparing to enforce the construction ban and other sanctions which are imposed on those regions not meeting the ambient standard for ozone?

Answer: EPA does not interpret the construction ban provided in section 110(a)(2)(I) of the Clean Air Act as applicable to all areas that are not attaining the standard by the statutory date. Rather, since 1983 EPA has interpreted that ban as applicable only to areas that EPA has found have not fulfilled the requirement to submit a plan projecting attainment by that date. 48 Fed. Reg. 50686 (November 2, 1983). Moreover, EPA currently believes that the ban will no longer be available for use in areas that have fulfilled that planning obligation, even if EPA eventually finds that the plans for such areas are inadequate.

EPA has codified this interpretation at 40 Code of Federal Regulations 52.24(a). Although EPA may consider pursuing rulemaking to change this reading of the statute, that is only one of the options now under consideration.

The section 110(a)(2)(I) construction ban is still available, however, for areas where plans have not yet received EPA approval as meeting the requirements of Part D of the Clean Air Act. EPA is now considering whether to disapprove the plans for some or all of these areas (which include such cities as Los Angeles, Chicago, and Cincinnati). If EPA were to disapprove those plans for failure to demonstrate attainment by the end of 1987, it would be required to impose the ban.

EPA has taken a similar approach with respect to the sanctions provided under section 176(a) (cutoff of highway and Clean Air Act grant funds). Under EPA's 1983 policy, those sanctions are available to address state failures to make reasonable efforts to submit plans providing for attainment by the statutory date, not failures actually to attain by that date. Moreover, under EPA's 1983 policy, those sanctions are no longer available for an area where the plan has received approval as adequate to meet that requirement (as well as the other requirements of Part D). The sanctions are still available, however, for areas whose plans have not yet been approved as adequate to meet Part D (e.g., those mentioned in the previous paragraph). Consistent with section 176(a), EPA will initiate rulemaking to impose these sanctions only in the portion of those areas that are not making reasonable efforts to submit adequate plans.

FEES (1)

Question: Last year in response to reconciliation instructions from the Senate, this Committee reported legislation requiring EPA to collect $20 million per year in fees on pesticides registrations, ocean dumping permits and other activities. Although that provision was dropped in conference, you have since proposed regulations for some fees and I notice in the OMB passback projections for significant fee revenues in the future. Would you share with the Committee your thoughts on fees and the role that they should play in your budget?

Answer: The collection of fees for services that the Federal Government provides has been authorized for a number of years. In the Independent Offices Appropriations Act (IOAA) of 1951, Congress stated that "each service or thing of value provided by an Agency ...is to be self-sustaining to the extent possible". Bureau of the Budget Circular A-25 (September, 1959) reinforced this policy and later reiterated (OMB Circular A-25, Revised: September, 1985) that reasonable charges should be made for services "that convey special benefits to recipients beyond those accruing to the general public". Following up on the policies set in those two branches of the Government, EPA is developing regulations for some fees and is working to examine other fees the Agency could potentially collect.

It is of utmost importance that the Agency is able to retain the fees it collects. To this end, EPA has prepared and is about to submit legislation authorizing EPA to retain fees. The proposal calls for the establishment of a Special Fund within the Treasury to earmark Agency fee collections. These fees would then be available through appropriations actions to the Agency programs responsible for their collection.

Question: It seems to me that Congress must be involved in the design of these fees. For one thing, the law needs to be changed so that the Agency actually benefits from the revenue it collects. Under current law those revenues would just go into the general fund. Would you prepare and send us legislation that could be used as a departure point in our future discussions on fees?

Answer: OMB recently approved a legislative proposal submitted by the Agency. Under the proposed bill, certain fees -- for services relating to pesticides, the review of chemicals, regulation of mobile sources of air pollution, ocean disposal, and quality assurance products and services -- collected by the Agency would be deposited into a Special Fund in the U.S. Treasury. These funds would then be available for appropriation, to remain available until expended, to carry out only the activities for which the fee is charged. The bill should be sent to Congress within the next week or so.

FEDERAL EMPLOYEE RETIREMENT

Question: Mr. Thomas, your 1988 budget includes a $44 million item for the new employee retirement system. Because your operating budget does not increase at all and because this was a brand new budget requirement, you have had to reduce other programs in the Agency by $44 million to provide these funds. It is my understanding that OMB assigned this amount to EPA based on some formula they devised. Frankly, I have my doubts that the amount needed is as high as $44 million. I know the Appropriations Committee will be watching it closely. But could you provide us some information on how the $44 million figure was arrived at and whether the budget office at EPA thinks it is a reasonable estimate of the contribution necessary for 1988?

Answer: I should clarify that the $44.3 million that you refer to as part of our request for the Salaries and Expenses Appropriation also includes the increased costs (in 1988) attributable to the 3% Federal payraise that took effect in 1987. For 1988, we estimate the additional Agency costs for the new retirement system to be $29.1 million and increased costs for the payraise to be $15.2 million.

We think that this $44.3 million request, covering both payraise and the new retirement costs, is reasonable. We plan to monitor the costs of implementing the new retirement system carefully.

For the new retirement system, we arrived at these projected costs by using actual and anticipated workforce and payroll estimates. In estimating participation in the new Federal Employees Retirement System, we used the number of employees automatically converting to the new system as of January 1, 1987 plus an estimated number of persons covered under the Civil Service Retirement System who will switch to the new system. We assumed that 40% of those covered by the Civil Service Retirement System will switch to the new system. This is the assumption used by both the Congressional Budget Office and the Office of Management and Budget in estimating the number of persons who will switch to the new system.

FEDERAL EMPLOYEE RETIREMENT

Question: And let me ask this: Suppose that all of the $44 million is not needed to pay for contributions to the retirement system. Will the dollars remain available to the Agency for reallocation to other needs?

Answer: The funds for both payraise and the new retirement would be placed in the Agency's account covering personnel compensation and benefits. If the $44.3 million exceeded the actual costs for payraise and retirement, funds could be used to cover additional personnel costs. We would follow Congressional reprogramming requirements before making any changes with the funds in this account.

DRINKING WATER

Question: A minor item in the OMB passback reminded me of a proposal that I floated last year in the drinking water debate. I want to get your reaction, Lee. OMB denied you funds to study complex mixtures of contaminants in drinking water This reminded me that I suggested that the Agency should promulgate an MCL for total organic compounds. The purpose of such a step would be to limit possible synergistic effects and also to provide a surrogate standard for organics which are not yet regulated or occur infrequently. MCLs are used as standards in may EPA programs. Do you think a total organic standard might be useful? Are you actively working on the one?

Answer: EPA has been pursuing this question for many years. Conceptually it would be attractive if an analytic method would cover a distinct family of substances of well defined common toxicology. Their toxicology would have to be quantifiable, otherwise the choice of a value would be completely arbitrary. There are a few possibilities but, in general, total organics would be much too broad as a class to make a scientifically/toxicologically rational standard.

Even a much smaller subset such as total Volatile Organic Chemicals (VOCs) is still much too broad to allow a scientific basis for aggregation into an umbrella MCLG or MCL. The toxicology of substances within that group ranges from negligible to significant. Any arbitrary non-zero standard might underestimate the contamination of a water supply - e.g., 1 ppb of vinyl chloride may be much more significant than 100 ppb of trichloroethylene based upon potency calculations. Selection of zero would, of course, be scientifically and economically undefensible.

We requested public comment on an MCL/MCLG for total VOCs and have concluded that such a standard is not defensible. The EPA agrees with the many comments of those who believe that a MCLG or MCL for total-organics would not be scientifically valid. This is consistent with the recommendations of the National Drinking Water Advisory Council and we have concluded that it would be technically not possible to establish a credible MCLG or MLC for total VOCs or total organics. EPA agrees with the commentator who stated that, "In summary, VOCs vary greatly in their toxicity and chemical properties. It would not be possible realistically to establish a single [MCLG] that would represent a no-effect level for the different VOCs that might be found in drinking water"

In addition, an MCLG or MCL for total organics would not be meaningful because both carcinogens and non-carcinogens are regulated. An MCLG of zero adjusted with a number would produce a number greater than zero. EPA would not be setting a goal that prevented known or anticipated adverse effects for known or probable carcinogens if a non-zero number were chosen. On the other hand, zero as an MCLG for total organics would be overly stringent, as the toxicology of most substances would not warrant such a drastic conclusion. This would be the equivalent of expecting distilled water in a public water supply.

LEAD IN DRINKING WATER

Question: Recently the city of Washington, D.C. has discovered serious problems with lead in its drinking water supply. This story Has dovetailed with the 1986 amendments banning lead from new construction and the efforts of EPA to lower the standard to 20 parts per billion. We're making progress, but nothing we have done so far will give much aid to those folks who have lead pipes connecting their homes to the watermain here in D.C. and in hundreds of other cities across the nation. Are we seeing the beginning phases of a real significant nationwide problem here? Do you have any idea how much repair and replacement our cities will have to undertake to get into compliance with 20 parts per billion at every tap?

Answer: Clearly, lead contamination in drinking water is a problem that is national in scope. Since the reduction of the major source of lead in gasoline, some foods and paints, drinking water is now a bigger issue even though the actual exposures from drinking water are not increasing. Up to this point (i.e., before the Congressional ban of lead-content plumbing materials) lead-based solder has been in wide use, and we know that lead pipe may be present in older plumbing and service connections. From what we know of the corrosiveness of the water in many systems and the effect of corrosivity to increase the rate at which lead leaches from such materials, millions of people could be exposed to elevated levels of lead in drinking water. A recently released EPA analysis, still in draft, explores the potential consequences to human health that such levels might have. Admittedly, this study is a very rough guess, in the face of a great deal of uncertainty, but there are serious concerns here.

In the short-term, there are low cost measures that systems can take to minimize lead contamination through treatment at central plants to reduce the corrosiveness of the finished water. EPA estimates that this treatment can cost less than a dollar per person per year, and in large systems corrosion control can result in cost savings to the water systems that use it, in the form of less damage to water system pipes and other materials.

The Washington, D.C. experience suggests that many systems will also need programs to replace lead pipe and lead service connections. This will be much more expensive and will also take much longer to complete. We do not yet have any estimates of how extensive such programs will be, although Washington, D.C. has stated a potential range of 100 million dollars or more.

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DRINKING WATER

Question: Your budget submission to OMB indicated that you submitted a 1987 supplemental request of about $23.5 million for the drinking water program. What happened to that request?

Answer: On August 19, 1986, the Administrator sent a letter to the director of the Office of Management and Budget outlining the Agency's additional funding needs in 1987. While informal discussions were held concerning additional resource needs, no formal hearings took place. Included are the materials submitted to OMB in support of this request.

Honorable James C. Miller III
Director
Office of Management and Budget
Washington, D.C. 20503

Dear Mr. Miller:

Just before the President signed the Safe Drinking Water Act Amendments into law, I wrote a letter to you dated June 13 saying that I planned to submit an Amended Budget Request for supplemental resources. Those resources would allow this Agency to carry out new responsibilities under the law; they are of sufficient magnitude that I cannot absorb them in the funding currently proposed in the 1987 President's Budget.

After careful review, I propose an Amendment totaling $23.4 million. This amount, while too large for me to fund internally, is still far short of the increase of $111 million authorized for the Amendments. The principal difference is in new grant programs, which we would not be able to fund in the first fiscal year in any event.

I have enclosed a brief description of the activities we will commence in 1987 to meet the demands of the Amendments. Also enclosed is a summary of the request by appropriation account.

I believe that you will find that I have done my best to subject our needs to the "scrutiny of the budget development process" as I promised in my earlier letter.

Sincerely,

Lee M. Thomas

Enclosures

bcc: A. James Barnes
AX(3)
OARM(2)
OC
Budget Division
Official File
PM-225/ADAMS/deb/Rm.717WT/X4170/7-31-86/Disk:John-D/Rev.8-19-86

SAFE DRINKING WATER ACT AMENDMENTS OF 1986

DESCRIPTION OF ADDITIONAL NEEDS

The SDWA Amendments represent an important step in the protection of drinking water supplies and underground sources of drinking water from contamination. The Amendments are intended to (1) hasten the establishment of National Primary Drinking Water Regulations (NPDWRs), making drinking water supplies free from contamination which may pose any human health risk; (2) foster full compliance with minimum Federal requirements by adding a variety of new enforcement tools; (3) increase State and local governments' abilities to protect their ground-water resources; and (4) reform regulatory requirements to help public water systems, particularly small systems, achieve compliance. EPA activities for which additional FY 1987 resources are needed include the following.

Drinking Water Regulations/Regulatory Program Development

The SDWA Amendments require EPA to promulgate at least 83 new NPDWRs on a three-year schedule. This speeds up the schedule for standards which EPA already is planning to regulate and mandates standards for up to 27 more contaminants than EPA is prepared to regulate, contaminants for which little or no data is available. EPA needs resources in FY 1987 to develop the factual basis for setting enforceable standards for these contaminants by June, 1989. The Amendments require EPA to promulgate filtration-treatment regulations (applicable to surface-source systems) by the end of 1987; resources are needed for this activity. The Amendments establish a triennial cycle (beginning with 1988) listing priority contaminants and requiring EPA to promulgate no less than 25 NPDWRs from the list. Resources are needed in FY 1987 for EPA to develop the list and to begin research on contaminants to be regulated in future years.

By the end of 1987, EPA must amend regulations governing waste-disposal (Class I) injection wells, adding new monitoring methods that may be required via permit. EPA must also prepare a report to Congress on assessment of the contamination potential of miscellaneous (Class V) injection wells. Resources will also be required to revise Hazardous Waste regulations and guidance to conform with the Amendments.

The Amendments also require EPA to establish an unregulated contaminant monitoring program by the end of 1987, whereby all Public Water Systems are to test for EPA-designated contaminants in a five-year cycle. EPA will also have to revise PWS regulatory requirements to implement new variance, exemption, and public notification requirements, as well as to inform States and water systems regarding the prohibition of lead-content plumbing materials. Other requirements for which FY 1987 resources are needed include a report to Congress on the comparative health risks ensuing from treatment chemicals vs. contamination and promulgation of new regulations specifying Indian tribe eligibility for primary enforcement responsibility.

Enforcement

The SDWA Amendments require EPA to take either administrative or judicial enforcement action against violations of the Act, if States with primary enforcement authority (primacy) fail to undertake enforcement within 30 days and when violations occur where EPA has direct implementation responsibility. FY 1987 resources are requested for EPA to develop the mechanisms for new administrative compliance orders and penalties and to pursue enforcement actions for violations. In the Public Water Supply program, the predominant number of violations occur in primacy jurisdictions (given the large number of primacy States). EPA enforcement efforts in that program will emphasize encouraging States to take greater enforcement initiatives and providing direct assistance on State actions. In cases where States have not satisfied the legislative mandate, however, EPA is compelled to issue compliance orders to the violating systems. In the Underground Injection Control program, EPA has substantial direct-implementation responsibility, and most of the EPA workload involving enforcement in that program will be in direct-implementation States.

Increases in FY 1987 are requested for State grants to substantially augment States' enforcement efforts. This is intended to forestall a larger Federal enforcement presence than would otherwise be required.

EPA's request for resources also includes concomitant legal support in the Regions to support these administrative actions, hearings, and penalty collections.

Ground Water

The SDWA Amendments add two new authorities that provide assistance to States and localities in protecting their ground water resources.

The Amendments authorize a Sole Source Aquifer Demonstration Program, which would provide Federal grants to localities with designated Sole Source Aquifers (SSAs) to establish exemplary ground-water protection programs for Critical Aquifer Protection Areas Protection (CAPAs) within their boundaries. Within one year of enactment, EPA must establish by rule criteria for identifying CAPAs. Potential applicants that have not yet been designated as SSAs must submit and EPA must approve or disapprove all applications for designations within 24 months of enactment. Resources are requested in FY 1987 to develop the CAPA rule and grant guidance, act on applications for SSA designation, establish a process for CAPA applications, and begin review of CAPA applications. No funding is requested in FY 1987 for the SSA demonstration grants.

The SDWA Amendments also authorize a Wellhead Protection Program, which provides for the establishment of State programs to protect Wellhead areas of all public water supplies within State jurisdiction from any contaminant which may have an adverse effect on the health of persons. EPA is required by the Amendments to issue guidance with criteria to be used by States to determine their wellhead protection areas. Resources are requested in FY 1987 to support the guidance development to establish the framework for the program; to conduct research on appropriate methodologies for subsurface water protection and detection of contamination; to develop technical support documents for States on mapping, hydrogeologic assessment, and control program design; and to begin working with States as they develop their programs. No funding is requested in FY 1987 for the Wellhead Protection grants.

Public Water System Supervision

In addition to the grant increase requested for enforcement, an additional grant increase in the PWSS program is requested to expand States' technical assistance activities to help small systems become and remain in compliance with regulations. This request is based on new SDWA authorization for such assistance. EPA believes that such assistance, with an explicit compliance objective, is best delivered within the context of State regulatory programs as opposed to third-party organizations.

* * * * * * * * *

Additional resources will be required to provide administrative support for SDWA implementation. These resources will fund additional personnel, contracts, grants and information management needs both at Headquarters and the Regions. The request incorporates the Agency's customary levels of administrative staffing in these areas.

SUMMARY OF RESOURCES

To carry out the additional responsibilities of the Safe Drinking Water Act Amendments of 1986, the Environmental Protection Agency requests supplemental resources totaling $23,350,000, supported by 171.8 total workyears. Of that total, $12,185,000 will be for the Salaries and Expenses appropriation, $9,700,000 for the Abatement, Control and Compliance appropriation, and $1,465,000 for the Research and Development appropriation.

The Agency is prepared to transmit a detailed display of the resources for 1987. In addition, we plan to incorporate these levels in our 1988 request in September.

LUST

Question: In November of 1983, this Committee held a hearing on ground water contamination. We had a panel of EPA Assistant Administrators there at the table where you are sitting. I asked them what was the most troublesome source of ground water contamination. They told us it was leaking underground storage tanks. They told us some horror stories and gave the problem the acronym LUST and caught our attention. The Congress responded swiftly. We have legislated both a regulatory program to prevent leaks and a response program to clean them up. We banned bare steel tanks. We increased the gasoline tax to pay for cleanups. But so far you haven't been very helpful. Your regulations are way behind schedule. Your national survey didn't tell us anything new. And you refuse to budget money to actually clean up tanks. It's now more than three years since your Agency identified underground tanks as a significant national problem. We have given you all of the necessary tools to do something about it. When are you going to take some action that contributes to a solution?

Answer: We have been taking considerable action. We developed and issued the Tank Notification regulation on schedule. This has resulted in 1.5 million tank registrations being submitted by tank owners to the States. We also got the UST Grant program in place, which has enabled States to set up or augment a core program.

The tank standard regulations for petroleum and chemical tanks are scheduled to be proposed next month. We have also developed the regulations for approval of State programs to implement the underground storage tank program once the technical standards are in effect and they too will be proposed next month.

The Trust Fund legislation passed October 16, 1986, and the funds from the tax have just become available this month. We have been developing the program and necessary procedures to make this money available to the States for cleanups. We are currently on schedule to make cooperative agreements for this purpose by May of this year.

In addition, the Trust Fund legislation required that we develop and propose financial responsibility regulations. This has been done and they are part of the regulatory package we will propose next month.

As part of the first year application for Trust Fund monies, we will ask States to identify the full scope of their need for trust funds to clean up sites. That will give us a realistic basis for determining how much money is needed from the Trust Fund to do the job, and we will take that into account in our FY 88 clean-up fund distribution to the States.

UNREGULATED CONTAMINANTS

Question: In the drinking water amendments that we adopted last year, we included four layers of protection for public water supplies. One layer was a requirement that EPA established MCLs for a long list of contaminants. A second layer was the filtration and disinfection treatment standards. A third was the wellhead protection area program around drinking water wells, and the fourth layer of protection was a program to monitor for unregulated contaminants. I am satisfied with the progress we are making on the first three items. But we still have some way to go in the fourth item... monitoring for unregulated contaminants. It was intended that EPA would publish a very broad list of potential contaminants. After which local water suppliers would have their water tested for the presence of each item. This can be expensive and technically difficult for small systems. So we authorized $30 million to pay for the test. We even told the small systems that they could mail a sample of their water to Lee Thomas and he would analyze it for them. Your drinking water office has been resisting this program. They are refusing to develop an adequate list. And there appears to be no money in this budget to pay for the analysis. Can you give us your current thinking on implementation of the program for monitoring unregulated contaminants at small public water systems?

Answer: Monitoring regulations for unregulated contaminants are expected to be promulgated in June 1987. The regulations will require all public water systems to sample surface and ground water for possible contamination by any of some 50 volatile synthetic organic chemicals (VOCs). The VOCs are the most common organic contaminants detected in drinking water and in fact are excellent surrogates for the presence of other synthetic organic chemicals (with the exception of organic pesticides) in drinking water supplies. The VOC's value as surrogate has also been proven many times over in analysis of Superfund sites. The regulations will be phased in over time such that small systems will be required to monitor during the last two years. In regard to the specific list of contaminants, the VOCs can be analyzed at the same time as the compliance monitoring for the regulated VOCs for a total cost of about $200 per sample.

Monitoring requirements to assure compliance with MCLs for at least 74 other synthetic organic chemicals, pesticides, inorganic chemicals, radionuclides, and microbiological contaminants will be promulgated in two groups, one in June 1988, the other in June 1989. Some 60,000 community water systems and an additional number of "non-transient" systems will be covered. Total cost for analysis if monitoring for all 83 contaminants is conducted is estimated to be about $2,500 per sample; in addition to relatively high costs per sample, analytical methods are still being developed for many of the contaminants and few laboratories are currently available that would qualify to conduct these analyses. EPA is working hard to make sure that methods and laboratories are available to conduct the required monitoring by redesigning and expanding the laboratory certification program.

NONPOINT SOURCES

Question: How do you intend to implement the nonpoint source pollution control program that was included in the Water Quality Act yesterday?

Answer: We intend to build on existing State and Federal nonpoint source control efforts as we implement Section 319. Our first step will be to issue draft guidance to all interested parties on the preparation of the State nonpoint assessment and management programs required by the amendments. Based on comments received, we will revise and issue the guidance on which States can begin the development of the State assessments and management programs. At the same time, we will begin to develop program regulations in conjunction with the Federal/State/local NPS Task Force and all other affected parties.

FIFRA (waiver)

Question: The OMB passback on the 1988 budget instructs you to establish a waiver process for the so-called limited use pesticides. OMB is apparently concerned that the health and safety data requirement of the law will discourage manufacture of small volume products. The waiver sounds like a real invitation for abuse to me. We have just corrected the problem of emergency registrations and now OMB wants you to invent a new way to avoid the health and safety studies. What are your thoughts on a waiver? Is it good policy? And for what kinds of problems might it be useful?

Answer: Section 3(c)(2)(A) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires that, in establishing standards for data requirements, the Environmental Protection Agency (EPA) consider the anticipated extent of use, pattern of use, the level and degree of potential exposure of man and the environment to the pesticide, and the impact of the cost of developing the data required to support pesticide registrations. This mandate is reflected in EPA's regulations pertaining to data waivers and minor uses (40 CFR 158.45 and 158.60). EPA believes that waivers are good policy in certain instances.

When EPA requires data for a new registration or pursuant to section 3(c)(2)(B) of FIFRA, registrants or chemical companies who believe a waiver to be appropriate may request a low volume/minor use waiver of the data requirements (with supporting documentation). The Agency's practice has been to review such requests to determine whether it would be economically reasonable for registrants to generate the requested data and whether the chemical is of beneficial use and fills a unique need. If the determination is made that the testing is not economically feasible and the chemical fills a unique need, then the request is reviewed scientifically to determine whether any or all of the data could be waived or whether some of the data could be deferred pending the review of a subset of the data. In such cases, the registrant must submit an initial subset of the data, which are then reviewed by Agency scientists, and based on that review, EPA decides whether additional data are needed. These requests for waivers have been handled by EPA on a case-by-case basis in the past. However, the Agency plans to codify the policies which have emerged from its experience in this field.

The data waiver provision is an important element of EPA's regulatory program. In some cases the full complement of data requirements are not necessary for the protection of public health and the environment. For example, a geographically limited area may be threatened by a pest which requires specific treatment, but it would not be economically worthwhile for a chemical company to develop the full complement of data, and for this particular use, all the data may not be necessary to the Agency. In another case, a small chemical producer may provide a chemical of real utility, but when EPA asks for a major data submission, the company cannot justify the expense of developing the data. I believe that, in such cases, it is appropriate for the Agency to take a closer look to make sure that all the data being required are absolutely necessary for the use in question.

FIFRA (Pesticide Survey)

Question: This budget includes funds to conduct the pesticides in ground water survey, but there have been indications that you are having trouble getting that survey started. Can you give us a status report on the pesticide survey?

Answer: The National Survey of Pesticides in Drinking Water Wells is moving forward aggressively. This extremely complicated undertaking has required extensive planning, which is now complete. The pilot study, which will evaluate procedures, methods and logistics for the full survey, will begin in March 1987. The pilot is expected to be completed in September 1987 with the full survey beginning soon thereafter. The 1988 President's Budget provides full funding for sampling and analysis. However, some work will continue in 1989 using the previous year's funding.

The full survey design calls for the sampling of some 1500 wells, equally divided between domestic and community water systems. This will be reflective of national conditions. In addition, health advisories for the pesticides of greatest concern are being developed. The first set of 12 will be available for external Agency review by February 27, 1987. These will be followed by an additional 15 on March 20, 1987, and a third group of 15 on March 31, 1987.

FIFRA (Compensation)

Question: FIFRA includes a different kind of compensation. When you cancel a pesticide on an emergency basis you are required to buy up all the existing stocks to compensate the manufacturers and formulators for their loss. A large appropriation was necessary to compensate in the case of EDB. Do you think that FIFRA should be amended to repeal that compensation requirement? Why should the taxpayer bear the risk for a manufacturer who makes and sells an unsafe product?

Answer: We should correct one common misimpression about indemnification and disposal. The Agency does not "buy up" existing stocks of suspended/cancelled pesticides. Section 15 of FIFRA requires the Agency to indemnify holders of such pesticides for economic losses which they sustain as a result of the suspension/cancellation action, limited to no more than the fair market value of the pesticide immediately prior to the suspension action. This indemnification payment does not confer ownership of the pesticide to the Agency.

One further correction is also in order. The Agency did not receive any additional appropriations in the case of EDB. Unexpended balances from prior year appropriation for abatement, control and compliance were recertified for use for EDB indemnification and disposal.

Pesticide disposal required by Section 19 of FIFRA is a separate and distinct activity. This section requires the Agency to "accept for safe disposal a pesticide the registration of which is cancelled under Section 6(c) if requested by the owner of the pesticide."

On the issue of amending FIFRA, the Agency wholeheartedly supports an amendment repealing relevant portions of Section 15, which require federal indemnification to the holders of suspended and cancelled pesticide stocks, and Section 19, which require EPA to pay for the costs of disposal of those stocks.

The cost of environmental protection should be placed squarely on the shoulders of the regulated community, not the regulating agency. The legislative requirement for federal liability for these costs should be stricken from the statute. There is no other comparable provision in other environmental laws.

FIFRA (Liability)

Question: When we went through Superfund you were involved in the debate on the exemption for farmers from liability for pesticide damages. I recall my efforts to get you to say that the liability should be shifted to the manufacturer. All of those issues are up again in the context of FIFRA. What are your thoughts on that subject now? Who should pay compensation to those injured by pesticides in the environment?

Answer: Where a farmer or other user applies a pesticide according to the instructions on the label but nevertheless causes environmental damage, there is a valid argument that a user who has acted in good faith in accordance with existing FIFRA requirements should not be held liable for pesticide damage. This argument generally excludes a user who may have acted negligently or recklessly in the misuse of a pesticide. On the other hand, pesticide manufacturers have argued that it does not make sense to hold the registrant responsible in all cases of environmental damage from normal pesticide use. Again, there is a valid argument that it may be unreasonable to hold registrants responsible for anticipating every potential circumstance and every indirect result of a pesticide's use. The Federal government, however, should not be responsible for paying any such compensation.

FIFRA (EPA Role)

Question: The Congress came very close to passing a reauthorization of the national pesticide law last year. Right after we adjourned you indicated that you would be pushing the Congress to get back to work on that subject early this year. What are your views on the prospects for early action on FIFRA and what role do you plan to play in that process?

Answer: The prospects for a new FIFRA this year depend heavily on whether FIFRA reauthorization receives serious commitment and priority in both Houses of Congress. Unless FIFRA reauthorization has a committed champion in both the Senate and the House of Representatives, it is difficult to envision the enactment of a new pesticide law. If FIFRA reauthorization becomes more active, EPA would expect to be involved in the deliberation process.

Questions Submitted for the Record by the Environmental Protection Subcommittee

Question: Please assume that by January 1, 1983 the Agency had promulgated a program which would have reduced VOC emissions in each of the areas by between 17 percent and 45 percent. Also disregard the role of oxides of nitrogen or, alternatively, assume that all major sources had been required to retrofit with low-NO_x burners or SCR and that a light duty emissions standard of 0.4 grams per mile were in place. With these assumptions, please indicate which of the listed areas would be in nonattainment as of January 1, 1988. For each area in nonattainment, please indicate the date by which attainment would be projected.

Answer: It is very difficult to make attainment projections with regard to ozone SIPs, either individually or in the aggregate. To start with, EPA's preliminary estimates are based on 1983-1985 air quality data. Data from 1986 and 1987 would be needed to precisely determine December 31, 1987 attainment, and those data are not available.

Given the assumptions stated in the question and keeping the concerns mentioned above in mind, it is possible to estimate the approximate number of areas on the list provided in response to Question S-8 which might attain at 17% and 45% reductions as being about 20 and about 50, respectively. (Note: the "50" includes the "20.")

The targets against which the 17% and 45% are taken came from recent national estimates of needed emission reductions, not from the specific SIPs. Fully up to date emissions inventory information would be needed in order to know exactly what emission reductions are necessary to reach attainment. It is not possible to give specific city names or attainment dates because of the wide error range implicit in these kinds of estimates. For instance, specific attainment dates cannot be predicted without knowing the timing of implementation of the listed control measures. Some of the listed control measures have lengthy start-up periods before significant emission reductions are possible.

RELOCATION OF ALL CONTROL TECHNOLOGY RESEARCH TO DOE

Question: Mr. Thomas, I note that in the OMB passback to the Committee that the Agency's request for research into sulphur dioxide control technologies was reduced. The passback stated, and I quote, "All control technology development activities will be housed within DOE's combustion and clean coal program."

Is this an accurate reflection of the OMB policy; that is, to vest the responsibility for such research in the Department of Energy?

Answer: As the passback language indicates, OMB's initial decision was to move all control technology development into DOE, because DOE clearly is, and has been the lead Federal agency with respect to clean coal technologies. This decision was slightly modified resulting in the clean coal technology program being housed in DOE and other control technology research being restored to EPA.

RESEARCH AND DEVELOPMENT AND OTHER REPROGRAMMINGS

Question: Mr. Thomas, it would appear that there were substantial reprogrammings of Fiscal Year 1987 Appropriations of which the Congress was not notified. It looks as if several million dollars was moved out of Air and Safe Drinking Water-- and perhaps other areas as well--and into Hazardous Waste. Is this correct? If so, would you please explain why this decision was made. Hazardous Waste requests would almost certainly have been approved by the Congress. Why didn't you simply request a supplemental appropriation?

Answer: We did not reprogram funds from Air and Safe Drinking Water to fund Hazardous Waste. In fact, there is an increase of funding for the Safe Drinking Water Program from the 1987 enacted level of $105.2 million to our 1987 current estimate of $105.5 million while Air and Hazardous Waste programs remain fairly stable. Our Congressional Budget Justification shows the following:

Program	1987 Enacted	1987 Current Estimate	Change
Air	$245,706,100	$244,289,100	-$1,417,000
Drinking Water	$105,230,900	$105,570,900	+$331,000
Hazardous Waste	$258,187,200	$258,132,800	-$54,400

Question: Finally--and I will understand if you must supply this in writing--please provide a list of all such reprogrammings which exceeded the $100,000 total by budget segment and exactly what activities were eliminated, as well as those new ones which were supported, by the change.

Answer: Congress has provided us with a $1,000,000 reprogramming threshold which requires Congressional notification prior to any reprogramming of funds over this amount. Attached is a copy of the letters we received from the House and Senate Appropriations Committees. Our budget justification also provides a summary, "1987 Explanation of Changes from the Enacted Level," for over 200 program elements.

We estimate that we handle several thousand transactions yearly between accounts that are below this $1,000,000 threshold. However, we do have files available which document each of these transactions, many of which represent budget officers' reallocations between object classes or quarters of the operating year We will gladly permit Congressional staff to examine these files.

TED STEVENS, ALASKA
LOWELL P. WEICKER, JR., CONNECTICUT
JAMES A. McCLURE, IDAHO
PAUL LAXALT, NEVADA
JAKE GARN, UTAH
THAD COCHRAN, MISSISSIPPI
MARK ANDREWS, NORTH DAKOTA
JAMES ABDNOR, SOUTH DAKOTA
ROBERT W. KASTEN, JR., WISCONSIN
ALFONSE M. D'AMATO, NEW YORK
MACK MATTINGLY, GEORGIA
WARREN RUDMAN, NEW HAMPSHIRE
ARLEN SPECTER, PENNSYLVANIA
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United States Senate
COMMITTEE ON APPROPRIATIONS
WASHINGTON, DC 20510

November 10, 1986

Mr. Lee Thomas
Administrator
Environmental Protection Agency
Washington, D.C. 20460

Dear Mr. Thomas:

During the consideration of the HUD-Independent Agencies Appropriations Bill for fiscal year 1987 (H.R. 5313) the Senate Committee on Appropriations inadvertently omitted a reference to EPA when it restated its reprogramming procedures in its report (S. Rept. 99-487).

This reference would have acknowledged and continued the current practice with EPA of notification to the Committee of proposed reprogrammings exceeding $1,000,000 rather than the $250,000 threshold in place for other agencies under the HUD Subcommittee's jurisdiction.

This letter is to correct this oversight and your agency is hereby directed to maintain its current $1,000,000 notification threshold rather than that printed in the Committee report. The Committee, however, reiterates its separate directive that prior approval be granted for any reprogramming of funds added by the Congress over the requested level for individual programs, projects or activities, or otherwise specifically indentified in the Committee's report, or which would have the effect of changing an agency's funding requirements in future years.

Sincerely,

Jake Garn

Jake Garn
Chairman
HUD - Independent Agencies
Subcommittee

FUNDING OF STRATOSPHERIC DESTRUCTION R&D

Question: Last year, the Congress increased the EPA appropriations by about $5 million for the express purpose of increasing by that amount the funding devoted to work on stratospheric modification and global climate change. I emphasize that this money was to be in addition to what you were already planning to spend.

Would you please tell us whether that money was, in fact, devoted to additional spending on stratosphere modification and global climate change and, if not, what was it spent on.

For the record, please supply a copy of a list of all activities which the agency was planning to undertake without the additional $5 million; all activities which the agency stated it could undertake if provided with the additional $5 million--this list was contained in a letter to Sen. Leahy; and a list of all activities actually undertaken by the agency. In each instance, provide specific dollar amounts and state whether the work was to be intramural or extramural.

Answer: For FY 1987 the Congress appropriated $5.0 million above the Administration's budget request for activities related to global warming and ozone depletion. Of the $5.0 million, $2.0 million was for global warming and $3.0 million was for ozone depletion. The Agency intends to use the funds for these activities and to obligate the funds during FY 1987.

In a September 5, 1986 letter to Senator Leahy, the Administrator stated that the Agency believed that a total of $3.2 million was required to comply with a court order requiring a decison on whether regulation of chlorofluorocarbons (CFCs) was necessary to prevent stratospheric ozone depletion. The Administrator also indicated in the letter that an additional $2.8 million would be needed if a decision was made to regulate more than two source categories of CFCs. Under the court order this decision must be made by early FY 1988.

The letter to Senator Leahy included a list of activities that would be funded from the FY 1987 appropriation. This list is repeated below, along with the estimated cost of each activity. The activities in the list correspond generally with the activities that the Agency intends to undertake during FY 1987. The Agency is now in the process of determining the specific dollar amounts by activity. We will be happy to provide these to you as soon as they are developed.

STRATOSPHERIC OZONE PROTECTION PLAN
(Dollars in Thousands)

	FY 1987
Atmospheric Data Analysis	$ 100
Health Effects	$ 425
Other Effects	$ 300
Control Evaluation and Costs	$2,040
Benefits	$ 125
International Support	$ 250
Total Dollars	$3,240
Total FTEs	8

Global Climate Change
(Dollars in Thousands)

Sea Level Rise	$ 200
Ecological Effects	$ 70
Water Resources	$ 50
Regional Studies	$ 50
Climate Change Data	$ 50
Health	$ 25
Policy Studies	$ 90
Climate Change Impacts	$1,000
Total Dollars	$1,535

MOBILE SOURCE DEFEAT DEVICES

Question: Page A-38 of the Budget Justification refers to defeat devices. Please provide details.

Answer: Advances in the use of computers in emission control technology have provided an opportunity for manufacturers to fine tune the operation of emission control components to obtain optimum vehicle performance both in terms of driveability and emissions control. These advances also present an opportunity for 'programming' components to perform adequately under standard Federal Test Procedure (FTP) conditions but to alter performance under non-FTP conditions such that emissions in actual use are significantly greater than contemplated by the emission standards. In FY 1988 we will examine this issue systematically in order to determine the extent of the problem and, if necessary and appropriate, develop control strategies.

CERTIFICATION FEE SYSTEM

Question: Page A-38 of the Budget Justification states that the Agency is planning to establish a certification fee system. Please provide details.

Answer: In response to an agency task force recommendation, EPA is pursuing a plan to charge fees for the Emissions Certification and Corporate Average Fuel Economy programs. A working group has been assembled and is examining all the issues relevant to a fee program. Among the issues being addressed are the statutory authority, the cost basis for collecting fees, and the methodology for assessing those fees.

NEW GLOBAL WARMING RESEARCH PROGRAM

Question: Page A-22 of the budget justification states that there is a new interagency research program on global warming. Please describe this new program in detail and the date on which it was organized.

Answer: The new global climate change program referred to in the budget justification is currently being developed. It will focus on the scientific areas that are directly relevant to policy concerns and within EPA's areas of expertise. These areas include atmospheric chemistry, design of detection systems, ecological effects, and emissions. The initial focus will be on assessing what is currently known about this issue, without repeating what other agencies have already done, to determine where we can best make a contribution, if the scientific evidence indicates that contributions are necessary.

MOBILE SOURCE DEFEAT DEVICES

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SELECTIVE CATALYTIC REDUCTION

Question: Please state what level of funding, if any, is directed towards evaluation of Selective Catalytic Reduction as a control technology for stationary sources, and provide documents which have assessed its availability, efficiency, and cost. Compare the amounts contained in the budget for SCR evaluation with those for evaluation of low-NO_x burners and other non-SCR means of NO_x control.

Answer: The current level of funding for SCR and non-SCR means of NO_x control is $320 thousand, of which $300 thousand is for non-SCR NO_x research and $20 thousand is for SCR for boiler applications.

The major expenditure for SCR was a stationary diesel engine application test funded jointly by ORD and EPA's Region IX office in FY 1985 and FY 1986. A report documenting the results is provided.* For boiler applications, a small amount of funding is provided annually to a Japanese and an American source for maintaining information on development only. Most of the FY 1985 and FY 1986 NO_x funding and all of the FY 1987- 1988 funding is used for research on "reburning" technology. The ongoing program in the field testing of limestone injection multistage burner (LIMB) technology will provide additional experience in the use of low-NO_x burners, however the major emphasis in this work is in the evaluation of sorbent injection systems, since the low-NO_x burners being used are of established design.

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*Retained in committee files.

AIR R&D FUNDING

Question: The documents provided the Committee indicate that the Agency's request for R&D funding in the air program was reduced by about 12 percent. Please state what activities would have been undertaken had the request been granted.

Answer: In the initial OMB passback of the air program research and development budget, several items would not have been funded, including the Health Effects Institute and EPA support for NHANES-III. After negotiations with OMB, these items have been restored in the FY 1988 President's Budget.

AUTO RECALLS

Question: Please list all recalls which have been ordered during the last five years and, briefly, for what reason. Please state what approximate percentage of the total number of vehicles subject to the recall was, in fact, repaired. If the percentage was less than 100 percent, please state the total emissions reductions which would have been achieved had all vehicles been returned and repaired. Also, aggregate this data and provide single total for each pollutant (e.g. x million tons of carbon monoxide in calendar year 1986).

Answer: The information requested is presented in the attached table, "Ordered Recalls - 1982-1986."

Ordered Recalls -- 1982-1986

Cal. Year	Engine Family	# of cars*	Failing poll.	% response in ( )qtrs.		Tons/yr. reduction HC	CO	NOx
1982								
	79 GM 920X2EU	131	NOx	6%	(1)			497
	78 GM 860J0	52	NOx	33%	(6)			723
	78 GM 840B2	608	NOx	34%	(6)			23818
				Total				25038
1983								
	78 GM 810A2F	114	NOx	33%	(6)			4466
	78 GM 810Y2	527	NOx	27%	(3)			3330
	79 GM 910W2	99	CO	37%	(6)		4629	
	79 GM 910A2F	160	NOx	38%	(6)			7885
	79 GM 940B2	562	NOx	33%	(6)			38350
	80 GM C2S4V	174	NOx	6%	(1)			38350
				Total			4629	54911
1984								
	80 GM 03L4F	83	HC	36%	(3)	74		
	80 GM 04E2A	549	NOx	34%	(6)			23588
				Total		74		23588
1985								
	81 GM 12H2AD	83	HC evap	In Litigation				
1986								
	81 Chrysler BCR1.7V2HJ1	93	NOx	In Litigation				
				Grand Total		74	4629	103566

*In Thousands

OZONE CARCINOGENIC EFFECTS

Question: In the last two years, reports have been published in peer-reviewed journals suggesting that ozone may have carcinogenic or oncogenic effects. Please state what sums are included in this budget request for (A) replication of those studies or (B) the initiation of long-term animal studies to investigate the oncogenic or carcinogenic potential of ozone.

Answer: (A) The Agency is not requesting funds in this budget to replicate these studies because the Health Effects Institute plans to look into this matter and may undertake studies to replicate and expand on existing studies.

(B) The Agency is not requesting funds at this time to initiate long-term animal studies of this type. We do not believe that there is sufficient data to justify such an extensive research commitment at this time. As further data become available, we may re-evaluate our position.

Question: Also, please state whether the National Toxicology Program has been requested to review these studies and, if not, why not?

Answer: The National Toxicology Program (NTP) has not been requested to review these _in vitro_ studies, in part because it is our understanding that ozone is not relevant to NTP's mission. Office of Research and Development scientists have evaluated the reports and see no need to ask NTP to become involved at this time.

Question: Please state what level of funding would be required and over what period of time for long-term studies using both sexes of two species of rat and two species of mouse.

Answer: For a full investigation of the carcinogenic effects of ozone, a rough estimate is $500,000 to $700,000 per year for three years.

FEDERAL ACID RAIN RESEARCH BUDGET

Question: Because the total funding for the acid rain research program is spread among several different agencies of the Federal government, it has not been presented to this Committee or the Congress in a single document. Since the bulk of this funding is apparently provided through the Environmental Protection Agency, would you please assume the responsibility for assembling those figures and providing them to us in a single document similar in format to that of the EPA budget justification. If this is not possible due to budget or personnel constraints, please state what increase in those areas would be required to complete this task.

Answer: The Director of Research for the National Acid Precipitation Assessment Program prepares a consolidated budget request document for all of the Federal agencies working on acid rain research. Attached is a copy of this consolidated budget request for FY 1988.*

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*Retained in committee files.

HEALTH EFFECTS INSTITUTE

Question: Page A-18 of the budget justification states this budget will support research by the Health Effects Institute on the health effects of NO_x, SO_x, carbon monoxide and hydrocarbons. Since relatively little SO_x is emitted by motor vehicles, why is this research being funded through the Health Effects Institute?

Answer: Sulfur oxides (SO_x) was included in the list in error. The statement should have included ozone (O_3) in its place.

Question: Also, please provide copies of published results of all studies completed by the Health Effects Institute since its inception, as well as its annual budgets. If these reports have not been published in refereed journals, please describe the Institute's peer-review system.

Answer: The Environmental Protection Agency is pleased to provide copies of research reports published to date by the Health Effects Institute (HEI):

1. Estimation of Risk of Glucose 6-Phosphate Dehydrogenase Deficient Red Cells to Ozone and Nitrogen Dioxide; Amoruso, Marie, Ph.D.

2. Disposition and Metabolism of Free and Particle-Associated Nitropyrenes After Inhalation; Bond, James A., Ph.D., Medinsky, Michele A., Ph.D., Sun, James D., Ph.D.

3. Transport of Macromolecules and Particles at Target Sites for Deposition of Air Pollutants; Crocker, T.T., M.D., Bhalla, D.K., Ph.D.

4. The Metabolic Activation and DNA Adducts of Dinitropyrenes; Beland, Frederick A.

5. An Investigation into the Effect of a Ceramic Particle Trap on the Chemical Mutagens in Diesel Exhaust; Bagley Susan T., Ph.D., Dorie Linda D., M.S., Leddy, David G., Ph.D., Johnson, John H., Ph.D.

In addition, a copy of an important Special Report of the Institute's Health Review Committee entitled, "Gasoline Vapor Exposure and Human Cancer: Evaluation of Existing Scientific Information and Recommendations for Future Research," is also provided. *

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*Retained in committee files.

The Institute currently has a large number of studies that are underway or that have been completed but are as yet unpublished. Abstracts for many of these are included in the attached, "The Fourth Health Effects Institute Annual Conference: The HEI Research Program: Diesel Emissions and Health Effects."

With respect to annual budgets, current and historic funding of HEI by the Environmental Protection Agency (EPA) is as follows:

Year	Annual Amount (in thousands of dollars)
1981	$ 1,050
1982	1,500
1983	$ 1,000
1984	1,800 *
1985	3,600
1986	3,000
1987	3,000 **
	$ 14,950

* Reflects $600,000 committed in FY 1984 but made available in FY 1985.

** $2 million obligated to HEI to date, an additional $1 million to be obligated during the fourth quarter of FY 1987.

For peer review, the Health Effects Institute maintains a Health Review Committee of expert scientists who review each investigator's final report and provide analysis and synthesis of the data and conclusions contained in the report. The Review Committee determines whether each report's conclusion is justified by the data and identifies important areas for future research. Each research report contains an in-depth discussion provided by the Committee. The EPA Science Advisory Board commented on HEI's review process in a letter to Mr. Thomas on August 12, 1986, saying: "In addition, HEI internal peer review process is very thorough and, in many cases, is more methodical than the review process utilized by many scientific journals."

Question: Also, the OMB Passback suggests that EPA contemplates an expanded research role for the Health Effects Institute. Please describe this expanded role and state what precautions would be taken to assure public access to and review of data, as well as accountability of Institute officials (e.g., periodic filing of financial disclosure statements, maintenance of calendars and comment logs, etc.).

Answer: EPA has not come to a final decision on whether to expand the role of the Health Effects Institute in conducting health research. As a matter of policy, HEI requires each researcher to make available all research results for that work funded by HEI. These data are available to EPA and to the public at the conclusion of the research. HEI provides detailed administrative and financial information to EPA and government auditors routinely, and has occasionally opened its internal meetings to EPA observation. HEI adheres to all federal government requirements associated with receipt of federal grant funds.

NHANES CONTRIBUTION

Question: The OMB passback indicates that the EPA contribution to NHANES is being reduced. Please state (1) by how much the contribution is being reduced (2) why (3) what data collection or other efforts will be eliminated as a result of the reduction (4) the remaining amount EPA will be contributing to NHANES and for what purposes.

Answer: The allocation for this program is set at the amount originally requested in the OMB Request.

The Agency has proposed to use the allocated resources to obtain the following types of environmental health data through NHANES-III:

1. For ambient exposure measurement--indoor monitoring for radon and analysis of tap water samples for selected toxic and essential metals;

2. For human exposure measurement--analyses of blood and urine specimens for selected toxic and essential metals and cotinine, a marker of tobacco smoke; and

3. For health effects measurement--sensitive clinical, physiological and behavioral tests of the reproductive, respiratory, and neurological effects that, in many cases, have been associated with the pollutants for which exposure measurements are proposed.

OZONE NONATTAINMENT

Question: Mr. Thomas, my next question is on ozone nonattainment. In the Clean Air Act Amendments of 1977, the Congress established a deadline of December 31, 1987 for all areas of the United States to be in compliance with the ambient air quality standards. As we approach that date it appears that as many as 60 to 75 Regions in the U.S. will not meet the standard. You have not made a decision on controls for evaporative emissions from motor vehicles. The Agency has not moved to require controls for additional categories of hydrocarbon emissions. Had EPA acted more forcefully earlier, many of the areas that will not meet the 1987 deadline could have done so.

Attached is a list compiled by your staff of 16 different actions which could be taken that would reduce VOC (vee-Oh-cee) emissions by between 17 and 45 percent. Please state exactly what action the Agency has initiated, whether formal or informal, in each of these areas and the approximate date on which these actions were first undertaken. For each of these specific subjects please state with a simple "yes" or "no" whether the Agency has published (1) an advanced notice of proposed rulemaking or (2) a proposed rule or (3) a final rule or (4) a control technology guideline or (5) a listing pursuant to executive order 12498 or 12191. In the event the Agency submitted a listing under either of the executive orders to the Office of Management and Budget, please state what action, if any, OMB took with respect to them.

Answer: In general, the list of 16 possible actions was obtained after surveying the 1982 ozone SIPs. This was a list of possible measures being considered by States, in some cases to implement and in some cases only to study. This listing was considered to be supplemental to other RACT measures required for SIPs with attainment deadlines beyond 1982. Some of these measures were and are still considered to be "extraordinary" ones which at this date have not been fully analyzed for implementation in all situations across the country. It is simply not known how effective many of these measures would be as part of a long-term strategy. Many are not suitable for national promulgation but may be very beneficial in some local situations.

The individual status of each follows:

Action: Additional application of existing RACT
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: Yes
Listing Under Executive Order 12398 or 12191: No
OMB Action: N/A
Comments: N/A

Action: Stage II Control
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: No national rulemaking or control technology guideline has been done for Stage II controls. Several SIPs have included Stage II controls (e.g., California, District of Columbia and Missouri).

Action: Consumer Solvents
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: These controls appear in some individual SIPs or have been adopted for specific sources.

Action: Pesticides (Reduction in VOC Content)
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: N/A
OMB Action: N/A
Comments: EPA Region IX is funding a contract to develop controls for VOC emissions from the use of pesticides in California. The results of this study may be applicable to other ozone nonattainment areas in California and other parts of the country.

Action: Small Source RACT
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: N/A
OMB Action: N/A
Comments: These controls appear in some individual SIPs or have been adopted for specific sources.

Action: New RACT CTGs (Auto Body Shops, Architectural Coatings, etc.)
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: These controls appear in some individual SIPs or have been adopted for specific sources.

Action: RACT III (New SIP Call Areas, Extension Areas)
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: Yes
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: None

Action: Non-CTG RACT (New Sip Call Areas, Extension Areas)
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: Required in extension areas and SIP call areas. The States are proceeding on individual schedules.

Action: Enhanced New Source Review
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: This is being studied as part of the development of the post-1987 ozone policy. It does not yet appear in any SIP.

Action: Lower RACT Limits For Existing Sources
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: NO
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: These controls appear in some individual SIPs or have been adopted for specific sources.

Action: Waste Disposal
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: Some controls may have been adopted for specific sources.

Action: Barge and Tanker (Only Ports)
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: These controls appear in a limited number of SIPs. Implementation is uncertain.

Action: Onboard Control
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: Yes
OMB Action: None
Comments: None

Action: Cert. Fuel Change (11.5 psi)
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: None

Action: RVP Control
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: Yes
OMB Action: None
Comments: None

Action: Additional I/M
Advance Notice of Proposed Rulemaking: No
Proposed Rule: No
Final Rule: No
Control Technology Guideline: No
Listing Under Executive Order 12498 or 12191: No
OMB Action: N/A
Comments: None

Question: Please list all areas expected to be in non-attainment status for ozone on January 1, 1988.

Answer: EPA is presently compiling the necessary 1983-1985 air quality data that will be needed to make preliminary estimates. I anticipate this information will be available in about a week. It will be provided to you at that time.

Question: Please assume that by January 1, 1983 the Agency had promulgated a program which would have reduced VOC emissions in each of the areas by between 17 percent and 45 percent. Also disregard the role of oxides of nitrogen or, alternatively, assume that all major sources had been required to retrofit with low-NO_x burners or SCR and that a light duty emissions standard of 0.4 grams per mile were in place. With these assumptions, please indicate which of the listed areas would be in nonattainment as of January 1, 1988. For each area in nonattainment, please indicate the date by which attainment would be projected.

Answer: It is very difficult to make attainment projections with regard to ozone State Implementation Plans (SIPs), either individually or in the aggregate. To start with, EPA's preliminary estimates are based on 1983-1985 air quality data. Data from 1986 and 1987 would be needed to precisely determine December 31, 1987 attainment, and those data are not available.

Given the assumptions stated in the question and keeping the concerns mentioned above in mind, it is possible to estimate the approximate number of areas on the list provided in response to Question S-8 which might attain at 17% and 45% reductions as being about 20 and about 50, respectively. (Note: the "50" includes the "20.")

The targets against which the 17% and 45% are taken came from recent national estimates of needed emission reductions, not from the specific SIPs. Fully up to date emissions inventory information would be needed in order to know exactly what emission reductions are necessary to reach attainment. It is not possible to give specific city names or attainment dates because of the wide error range implicit in these kinds of estimates. For instance, specific attainment dates cannot be predicted without knowing the timing of implementation of the listed control measures. Some of the listed control measures have lengthy start-up periods before significant emission reductions are possible.

FISCAL YEAR 1988 BUDGET REVIEW

TUESDAY, FEBRUARY 17, 1987

U.S. Senate,
Committee on Environment and Public Works,
Washington, DC.

The committee met, pursuant to notice, at 9:30 a.m., in room SD-406, Dirksen Senate Office Building, Hon. George J. Mitchell (acting chairman of the committee) presiding.

Present: Senators Mitchell, Baucus, Breaux, Reid, Chafee, and Warner.

Fish and Wildlife Service

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator **Mitchell**. Good morning, ladies and gentlemen.

I wanted to begin by thanking the distinguished chairman of this committee for the opportunity to review the proposed fiscal year 1988 budget for the U.S. Fish and Wildlife Service. Senator Burdick is not able to be here this morning, but he does have an opening statement which I will have included in the record. I also have a statement from Senator Graham that will follow Senator Burdick's. (See pp. 207 and 210).

He also has submitted some questions which I will ask the witnesses to respond to in writing at their earliest opportunity, along with some written questions that either I or other Senators may have, as well.

The witnesses are the Assistant Secretary of the Interior for Fish, Wildlife and Parks, William P. Horn, and the Director of the U.S. Fish and Wildlife Service, Frank Dunkle.

Mr. **Horn**. Good morning, Mr. Chairman.

Senator **Mitchell**. Welcome, gentlemen.

Earlier this month we considered the President's $1.5 billion request for the operating budget of the Environmental Protection Agency. By comparison, the request for all of the Fish and Wildlife Service programs subject to appropriations is only one-fifth as large, about $300 million. With funding support that is approximately equivalent to that provided by the District of Columbia for the school system, we place much of our Nation's rich natural heritage in the custody of the Fish and Wildlife Service to preserve for future generations. We spend less than $30 million each year, and ask the Service to bring back from the brink of extinction the bald eagles and more than 400 other threatened and endangered species. We ask that the Service properly manage and protect from contamination a $90 million National Wildlife Refuge System which consists of 433 refuges, 152 waterfowl production areas, and 58 wildlife management areas.

We ask that the Service fulfill our international treaty obligations with Canada, Mexico, Japan, and the Soviet Union to protect over 800 species of migratory birds and conserve their habitats.

We spend about $50 million annually to conserve and restore sport fisheries, such as the Atlantic salmon; yet the sport fishing industry in this country, which depends upon the success of these efforts, generates over $17 billion each year in direct expenditures.

These statistics suggest that the funding for the Fish and Wildlife Service is far below the level needed to ensure sound stewardship of our Nation's fish and wildlife. In this time of severe budget restraints we cannot redress this disparity very readily, but we can at least ensure that the Service's programs are maintained at a prudent level. Unfortunately, as in years past, the President's proposed budget appears instead to target Fish and Wildlife Service programs for disproportionately large reductions. Overall, the fiscal year 1988 budget for the U.S. Fish and Wildlife Service submitted to the Congress requests a 26 percent reduction in spending.

The funding level requested for fiscal year 1988 is only one percent higher than the amount spent in fiscal year 1980. When corrected for the rise in the cost of living, the budget proposal calls for spending 30 percent less than we did seven years ago. Over that same period, the Fish and Wildlife Service has had to assume significantly greater responsibilities. Between fiscal years 1980 and 1988 the number of U.S. species added to the Endangered Species Act list will have nearly doubled, and the National Wildlife Refuge System will have grown by more than 40 million acres.

The Administration seeks to soften the blow from its appropriations request by asking for legislation to shift $25 million from the States' Sportfish Restoration Account to the Service's programs. This account, known as the Wallop-Breaux fund after the distinguished Senator and the now-Senator from Louisiana and a new member of this committee—this account consists of excise taxes on fishing equipment and motorboat fuels which anglers and boaters strongly supported as a means of enhancing State sport fisheries management. The proposed transfer of fees would break the bargain we struck with the States and the Nation's sportsmen. It would, by way of example, cost the State of Maine alone about $250,000 in available matching funds.

Even with the $25 million added to the Service's programs, implementation of this budget would have serious consequences for our fish and wildlife resources. For example, fully 20 percent of the funding to implement the Endangered Species Act would be rescinded for this fiscal year, and that reduction of one-fifth would carry forward in fiscal year 1988. In my State of Maine, that reduction would bring to an end efforts to restore the numbers of bald eagles, peregrine falcons, and three other endangered species. Acquisition of wildlife refuge lands and endangered species habitats would, under the President's proposed budget, be cut 63 percent this year and eliminated entirely in fiscal year 1988. Failure of the many refuges, such as Rachel Carson Refuge in Maine, failure to buy additional lands will mean that those lands will be developed and the integrity of the refuge, jeopardized. Not only are the development pressures on needed refuge and parklands increasing, but land prices also are escalating.

Consequently, I believe the President's proposal to eliminate funds for land acquisition is both environmentally and fiscally unsound. Budget proposals are far more than mere tables of numbers; they are the means by which an Administration, and ultimately the American people, establish their priorities.

We are here this morning to discuss those priorities. I understand the constraints under which you gentlemen are operating, but I wanted to make it clear at the outset that I strongly oppose this budget proposal, and I will urge my colleagues to do so, as well.

The budget proposal submitted to the Congress by the President requests unwarranted, severe, ultimately, and unwise reductions in the comparatively small and already underfunded programs of the U.S. Fish and Wildlife Service.

Gentlemen, I now look forward to hearing from you. You may begin in any form you like.

STATEMENT OF WILLIAM P. HORN, ASSISTANT SECRETARY OF THE INTERIOR FOR FISH AND WILDLIFE AND PARKS

Mr. **HORN**. Mr. Chairman, thank you. Let me introduce those at the table. My name is Bill Horn, Assistant Secretary; to my left is the Director of the Fish and Widlife Service, Frank Dunkle; to his left is Joe Doddridge, Assistant Director for Policy, Budget and Administration in the Fish and Wildlife Service; and to Mr. Doddridge's left is Jim Leupold, who is the Budget Officer for the Service.

Senator **MITCHELL**. Could you just give me the—is it Jim——

Mr. **DODDRIDGE**. Joe Doddridge.

Senator **MITCHELL**. How do you spell your last name?

Mr. **DODDRIDGE**. D-O-D-D-R-I-D-G-E.

Senator **MITCHELL**. And——

Mr. **LEUPOLD**. Jim Leupold.

Senator **MITCHELL**. Jim Leupold?

Mr. **LEUPOLD**. L-E-U-P-O-L-D.

Senator **MITCHELL**. Okay, Joe Doddridge and Jim Leupold.

Go ahead.

Mr. **HORN**. In addition, we have other members from the Fish and Wildlife Service Directorate present who, if we get into any specific programmatic areas, will be available to answer the committee's questions.

Senator **MITCHELL**. Okay, fine.

Mr. **HORN**. Mr. Chairman, I appreciate this opportunity to appear here today to present and describe the Administration's fiscal year 1988 proposed budget for the Service, and would ask that I be allowed to summarize my remarks and submit my written statement for the record.

The budget which has been proposed totals $632 million, a decrease of $54.6 million when compared to the 1987 appropriation. These reductions are partially offset by program increases in priority areas such as contaminant research and monitoring, construction related to dam safety and remedial actions, and research on the woodcock, an important migratory game bird which has suffered a significant decline in the Atlantic Flyway.

Proposed reductions are focused in deferrable activities, such as $40 million from land acquisition, $14 million from refuge maintenance, and $7 million from the proposed termination of State grant programs. The policy focus has been to maintain, in essence, our operational capabilities and focus our reductions in areas where we think that the deferral causes the minimal amount of impact on these important fish and wildlife resources.

Director Dunkle will be presenting the specifics for each account. I would like to take this opportunity to outline the priority program activities and discuss Service opportunities for alternative mechanisms for land acquisition.

One of our highest priorities has been implementing an entrance fee program on refuges similar to that which exists for many National Park Service units. Thanks in large measure to this committee, for the first time in 22 years the Service now has the authority to collect entrance fees on wildlife refuges. Through the provisions of the Emergency Wetlands Resources Act of 1986, the Service is implementing a fee collection program on selected refuges. This program is scheduled to begin in May, 1987, at selected units, with collections in fiscal year 1988 estimated at $8 million. Thirty percent of these funds, or $2.4 million projected for fiscal year 1988, will be used to fund operation and maintenance activities of visitor facilities on the refuges. The other 70 percent of the receipts from entrance fees are to be deposited into the Migratory Bird Conservation Account for wetland acquisition purposes. Currently, the Service is developing a final package related to refuge fees, and we will consult closely with the committee prior to implementation of this program.

The committee can take special pride in the positive benefits of the Emergency Wetlands Resources Act. As a result of this act, receipts under the Migratory Bird Account will increase to $37.6 million in the present fiscal year conservation—this figure is double in the account from last year. This amount enable us to acquire thousands of acres of additional valuable wetlands and to begin to make the first steps toward implementation of the North American Waterfowl Plan that we signed with Canada last summer.

One other special area within the budget that I would like to focus on has is fisheries—in my mind, historically, a poor stepsister within the agency. A goal of mine has been to euphemistically put the "fish" back in the Fish and Wildlife Service, and the fiscal year 1988 budget reflects this objective, with requested funding topping $37 million, an increase over our fiscal year 1987 request and the fiscal year 1987 congressional appropriations bill.

One of the key areas, and probably the largest single budget reduction in our 1988 proposal, is the area of land acquisition, and this is being done because of the need to reduce Federal spending. It does not reflect any antipathy toward adding important lands to the Federal conservation estate. Because of the continued need to acquire important lands, the Service is actively pursuing alternative methods of acquiring priority tracts, i.e. methods that do not require significant expenditures. We intend to explore acquisition alternatives such as cooperative agreements, exchanges, and donations. Over the past several years exchanges have contributed significantly to conservation efforts by facilitating the exchange of Federal land with relatively low wildlife values for more important wildlife habitat areas. Since 1980, land exchanges and donations have resulted in the acquisition of over one million acres of wildlife refuge lands.

Such exchanges, obviously, represent an attractive alternative to expenditure of appropriated funds, particularly during a period when we are all struggling to meet the targets set forth in the Gramm-Rudman-Hollings Deficit Reduction Act.

The service is presently pursuing two exchanges, the Aerojet and Collier, which would permit us to add approximately 40,000 acres to the National Wildlife Refuge System. Both of these exchanges are across State lines and will require authorizing legislation.

Focusing on the Aerojet proposal first, the Fish and Wildlife Service has prepared, legislation as a drafting service for the members of the Florida and Nevada delegations, and has held discussions with Aerojet with regard to a draft exchange agreement to implement an interstate land exchange proposed to us by Aerojet General Corporation. This exchange would trade wetlands owned by Aerojet in Dade County, Florida, for BLM lands northeast of Las Vegas, Nevada. Aerojet would use the Nevada lands as a rocket assembly and testing facility, adding several thousand jobs to the Nevada economy, while the Florida lands would be sold to the State of Florida Water Management District for conservation purposes. The revenues received by the Department would be used to purchase inholdings in the Key Deer and the Lower Suwannee Wildlife Refuges, tracts important to endangered species such as the key deer and the manatee.

In addition, we are actively working with two Florida corporations to exchange property owned by the Department of the Interior in Phoenix, Arizona, for approximately 115,000 acres of wetlands in south Florida, plus a cash payment to the Department presently estimated at somewhere around $50 million. The exchange involves a cooperative effort between the National Park Service and the Fish and Wildlife Service. The largest tract of the acquired land would be added to the Big Cypress National Preserve, and the other areas would add to the Federal estate habitat for the Florida panther since it would permit us to complete establishment of the Florida Panther Wildlife Refuge. The second addition would be the creation of the new Ten Thousand Islands National Wildlife Refuge off the southwest coast of Florida. The uses for the $50 million cash payment have not been determined. This exchange will also require legislation to implement.

In addition, aggressive pursuit of smaller administrative land exchanges is occurring. Recently, Director Dunkle and BLM Director Burford signed a memorandum of understanding regarding the use of BLM lands in trade to acquire lands for the benefit of the refuge system. Presently, 14 specific exchanges are being pursued which, if consummated, would add significant acreage to the National Wildlife Refuge System, and we obviously would keep the committee posted on the progress we make in pursuing these exchanges.

One last item is the fact that the Service is completing its five-year study program on the potential impacts of oil and gas leasing and development on the Arctic National Wildlife Refuge in Alaska. Pursuant to Section 1002 of the Alaska National Interest Lands Conservation Act, the Service has prepared and released a draft report which assesses hydrocarbon potential on the Arctic Refuge, as well as possible impacts to fish, wildlife, and wilderness values as a result of attendant exploration and development of hydrocarbons. Although we plan to send the final 1002 report to Congress in April, related wildlife population studies and the preparation of a comprehensive conservation plan for the Arctic Wildlife Refuge will be a part of fiscal year 1988 Fish and Wildlife Service activities on the North Slope.

Mr. Chairman, this concludes my prepared statement. Director Dunkle will now present his remarks.

Senator MITCHELL. Thank you, Mr. Horn.

Mr. Dunkle, before you begin I'd like to recognize Senator Breaux, who has just arrived, and Senator Reid, as well.

Senator Breaux, do you have an opening statement you'd like to make?

Senator BREAUX. No, Mr. Chairman, thank you.

Senator MITCHELL. Senator Reid?

Senator REID. Mr. Chairman, I do.

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator REID. Thank you for allowing me the time to offer this. I appreciate the hearing that you have arranged, and I want to welcome the Assistant Secretary for Fish, Wildlife and Parks, Mr. Horn, and the Director of the U.S. Fish and Wildlife Service, Mr. Dunkle.

The principal mission, as I understand it, of the U.S. Fish and Wildlife Service is to conserve, protect, and enhance fish and wildlife and their habitats. According to the Service, the agency manages 434 National Wildlife Refuge System units, 152 Waterfowl Production Areas, and 58 Wildlife Management Areas of more than 90 million acres.

The budget request for the Service proposes to rescind approximately 18 percent—more than $70 million—of the funds appropriated for fiscal year 1987. I have serious questions about how the U.S. Fish and Wildlife Service will carry out its Federal responsibility if these rescissions are approved, and I'd like to hear the views of both of you on this.

In 1984, the 422d refuge in the National Wildlife System was created just 90 miles northwest of Las Vegas, Nevada. It is called Ash Meadows National Wildlife Refuge, and it provides a secure habitat for some 26 plants and animals found nowhere else in the world. Several of these unique species have been given Federal protection as endangered species. In 1983 I worked with the other members of the Nevada delegation to secure the necessary appropriations so that the U.S. Fish and Wildlife Service could purchase this unique desert habitat. I am concerned that proposed rescissions will have a detrimental impact on the Ash Meadows National Wildlife Refuge.

Secondly, the proposal to transfer $25 million from the Wallop-Breaux Sportfish Restoration Account to the Fish and Wildlife Service's operating account is not acceptable to me. This fund, financed by special excise taxes on fishing tackle and motorboat fuel, provides grants to States to support sport fishing and boating programs. The fund, worth about $400,000 to Nevada in fiscal year 1988, provides substantial enhancement to fisheries restoration and boating programs in the State. The proposal to shift these funds is contrary to congressional intent and is a breach of faith to those industries and sportsmen who financed the program.

Again, Mr. Chairman, I look forward to hearing this testimony and appreciate the opportunity to make this comment.

Senator MITCHELL. Thank you, Senator Reid.

I now recognize Senator Warner.

Senator WARNER. Mr. Chairman, members of the committee, I appreciate you recognizing me out of order.

I have no opening statement but I would leave with the Chair a question for the Assistant Secretary for Fish and Wildlife, and at the appropriate time I would ask the Chair to propound the question.

Senator MITCHELL. I will do so. Thank you, Senator.

Mr. Dunkle, welcome. And as Mr. Horn did, if you could summarize your statement, and we'll place the full written statement in the record.

STATEMENT OF FRANK H. DUNKLE, DIRECTOR, FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR

Mr. DUNKLE. Thank you, Mr. Chairman. It is a pleasure to be here today. I would tell you that, other than meeting with the committee that effected my appointment, this is my first opportunity to appear at a Congressional hearing to discuss our budget and our activities. I look forward to your questions and to answering any questions that you provide in writing. We will ensure that any questions receive replies.

For the record, my name is Frank Dunkle. I am the Director of the Fish and Wildlife Service. You have met the other two staff people who are here.

Senator MITCHELL. For the benefit of the other Senators, Mr. Dunkle—Senator Breaux and Senator Reid were not here when we began—Mr. Horn has already given his statement, and the other two gentlemen introduced themselves. It's Mr. Joe Doddridge—and what is your position, Mr. Doddridge?

Mr. DODDRIDGE. Assistant Director for Policy, Budget, and Administration with the Fish and Wildlife Service.

Senator MITCHELL. All right. And Mr. Jim Leupold?

Mr. LEUPOLD. I am the Budget Officer for the Fish and Wildlife Service.

Senator MITCHELL. Thank you.

Mr. DUNKLE. Additional staff people, are also here, Mr. Chairman. If detailed questions are asked I would appreciate your understanding if we might request that they answer appropriate questions. I could introduce them at that time, or I can now. Which is your pleasure, sir?

Senator MITCHELL. Well, since we get the questions from our staffs, it's only fair that you get the answers from your staffs.

You can introduce them later, Mr. Dunkle.

Mr. DUNKLE. Thank you, sir. I can assure you that their answers to your staff will be staff answers. If we discuss policy, it is perhaps best that you and I deal with those questions.

I have a prepared statement, Mr. Chairman, and I would like to present a short summary so that we could approach the questions that the committee might have. With your understanding, I would like to submit the prepared statement for the record and provide a short summary.

Senator MITCHELL. Thank you, Mr. Dunkle. Your prepared statement will appear in the record.

Mr. DUNKLE. Assistant Secretary Horn covered many of the points that are in my statement. I will bypass those areas that Mr. Horn did discuss and that are in his statement, which you have.

I would like to touch on a few highlights, if I may, and then would be prepared for your questions.

We have a budget request, as you are aware, for $632 million. This is a decrease, as you heard from Secretary Horn, and, of course, there is a rescission request that is proposed for the 1987 appropriations that is approximately $71 million.

The 1988 funding level will provide for practical and effective operation of our 440 wildlife refuges and other components of the refuge system, roughly 90 million acres. It will allow for the proper operation of the 71 fish hatcheries and for our 11 research laboratories throughout the United States.

Generally, the health of the refuges is in good shape. We have had two years of Congressional add-ons for the operational funding. We have spent $62 million over five years for the Accelerated Resource Maintenance Management Program and will expend the remaining moneys during fiscal year 1987.

Secretary Horn did address the additional revenues that we would hope for from entrance fees to refuges. We are in the midst of trying to assess and review those refuges that would lend themselves to a first approach for an entrance fee. We are working with the National Park Service, which has the experience in collecting entrance fees in determining the amount to charge, and in deciding the best system for collecting that amount in order to place the largest amount of revenue back into the system. We will have approximately 25 areas for consideration, all of which will be going through review with the assistance of the National Park Service to help determine an appropriate entrance fee system for the Service.

In Alaska we have seven plans, comprehensive refuge plans completed. We have five drafts ready for public comment, and four remain to be finished in 1988.

We have a very aggressive contaminant monitoring and research program. Our budget proposal requests approximately $22 million, an increase of $500,000 for this accelerated program. We will be focusing on agricultural and industrial contaminants, including the impact of those on waterfowl. We will also be looking at the Gulf Coast wintering area throughout this coming year, and we will be putting together new methods and techniques to detect the new generations of contaminants that are being detected. As part of this budget request, we are planning to allocate $1.2 million as part of a Departmental effort to identify the extent of irrigation drainage contamination on Departmental lands.

We are also currently negotiating an agreement with the Idaho Engineering Lab to develop a national contaminant monitoring program for all of our refuges.

In the endangered species area, we are moving along aggressively. We will probably recommend to you a multi-year reauthorization of the act during this session. The specifics of a recommendation will soon be available and ready for your committee to consider, Mr. Chairman.

We have a budget of approximately $23.7 million set aside for endangered species; that is a decrease of $5.5 million from fiscal year 1987.

Termination of the section 6 grants has been proposed and we have completed many of the one-time recovery actions in 1987. The red wolf transplant is one of those. Also included are Hawaiian forest birds and the Aleutian Canadian goose; the latter recovery action took into account the eradication of the Arctic fox from some of the specific areas of importance to the Aleutian Canadian goose population.

With respect to sport fisheries restoration, we are intending to transfer $25 million from the sport fish restoration account to the Service's principal operating account. This is intended to be a one-time transfer for 1988 only. I am aware that Senator Reid may be asking some very specific questions about this transfer.

We have proposed this transfer in order to restrain Federal spending. We have had tremendous growth in this program. The receipts will have increased by $136 million since 1985. The fiscal year 1988 revenues will total approximately $174 million prior to the transfer of the $25 million. Proposed payments to the States, after the transfer, will be $149 million, and that figure is $8 million more than the amount that will be available to the States in fiscal year 1987. The transfer will allow us to maintain an acceptable level of operations in other areas of the Service's activities.

In summary, the 1988 budget is considered to be adequate for the essential activities of the Fish and Wildlife Service. It provides payments to the States totaling in excess of $256 million, and ensures that all of the health and safety projects will be funded.

I look forward to working with the committee throughout my tenure as the Director of the Fish and Wildlife Service, and I will be most happy to answer any of the questions that you have for Assistant Secretary Horn or for myself. If Mr. Horn and I cannot answer a question, we will ask for your indulgence to allow our staff to respond.

Mr. Chairman, this concludes my remarks.

Senator MITCHELL. Thank you, Mr. Dunkle.

We will now proceed to questioning. We'll go in order of appearance by Senators, and we'll have five minutes for the first round and continue until all questioning is completed.

I'll begin, Mr. Dunkle, by asking for your reaction to the huge disparity between the Fish and Wildlife Service's increasing responsibilities to protect endangered species and the decreasing level of funding to meet those responsibilities.

By way of background for my first question, from fiscal year 1981 through fiscal year 1988, approximately 235 U.S. species will have been added to the act's list, an 86 percent increase. The number of approved recovery plans, which identify actions needed to restore a species' numbers, will have increased by 350 percent, and the number of cooperative agreements with States to implement recovery activities will have increased by 170 percent. Yet, the fiscal year 1988 budget proposal which you are today presenting to this committee requests absolutely no funding for grants to States to implement the recovery activities specified by the cooperative agreements under section 6 of the act. It requests only 24 percent more than was appropriated in fiscal year 1981 for Federal recovery activities; and that, when corrected for the rise in cost of living, is actually a six percent decrease. And it requests only four percent more for all endangered species programs than was appropriated for fiscal year 1981—again, when corrected for the cost of living increases, representing a real decrease of 25 percent.

My first question, how can you reconcile these conflicting trends with your statutory responsibility to protect endangered species?

Mr. DUNKLE. Mr. Chairman, our budget, goes through several reviews before you receive it, and we make certain recommendations. However, it is the intent of the present Administration that we will make every effort to decrease overall spending while addressing and implementing those areas for which we are responsible.

I believe that the budget that we have proposed will meet those responsibilities, and we will make every effort to see that the Endangered Species Act is carried out as set forth to us by the Congress.

Senator MITCHELL. Your budget justification projects an increase of about 10 percent a year, and that's about 50 a year in the number of U.S. species listed. Will there not inevitably, then, be a corresponding in the number of required consultations and recovery activities?

Mr. DUNKLE. Yes, sir.

Senator MITCHELL. Well, then, how can you hold funding constant and provide the required protection for listed species?

Mr. DUNKLE. Just listing the species gives protection to it. We have been able to meet our increased responsibilities for consultation partially due to the fact that we have become more efficient. Allow me to digress for just one moment, if I may.

I think that we have had problems with the recovery approach. It has long been my feeling that when we list a species, it should carry with it a recovery plan, even if it is a bare bones type of recovery plan. We need to also have in mind a period of time that should be afforded for implementation of a sound recovery plan. The act does not call for that, and there are those who feel that this approach would be wrong. Their argument would be that we should list and put our money into listing, while letting recovery activities catch up. Their emphasis would be on listing because once you list, then a certain measure of protection has been provided for that species.

I think that we need to do more than list, but this budget was put together with the idea that listing was the first priority; recovery and consultation were the second and third priorities.

Senator MITCHELL. All right. I don't have time for another round of questions so I'll go to Senator Breaux for a five-minute round of questioning.

Senator BREAUX. Thank you, Mr. Chairman, and I thank the gentleman for your appearance.

Your budget that you're asking for approval of represents about a 26 percent decrease from last year. How much did the Service's request to Interior represent?

Mr. HORN. Let us see.

Senator BREAUX. How much you lost on the way to the store, so to speak.

Mr. HORN. We could provide the figures for you. I think that, by and large, we did not fare too badly compared to all the other bureaus in the Department. A general policy approach adopted across departmental lines has been to try to maintain our operational programs and our operational accounts, and to focus our reductions in other areas which would be areas of construction and land acquisition.

Senator BREAUX. Back to my question, did your request to Interior represent a decrease from last year? If so, how much?

Mr. DODDRIDGE. Mr. Chairman, our request to the Department was $290 million.

Senator BREAUX. It was what?

Mr. DODDRIDGE. It was $290 million. That is for the resource management account, the primary operating account of the Service. The request to OMB that went out of the Department was $286.7 million. The request to Congress is $302.2 million. The increase in what was finally submitted to Congress was based primarily on retirement costs under the new Civil Service Retirement Systems and pay costs.

Senator BREAUX. Nothing to do with programs?

Mr. DODDRIDGE. No, sir. The Department did, however, provide an increase of $4.5 million for contaminants.

Senator BREAUX. Whose idea was it—was it from the Service or somewhere down the line—to request a deferral of the Wallop-Breaux funds to the resource management off account?

Mr. HORN. We are given in the budget process target figures to meet. In looking at the budget, and given the deficit reduction targets, we confronted difficult choices in trying to figure out a way to make things match.

We were looking at the revenue projections associated with the sport fish restoration account, and we noticed the revenues increasing in fiscal year 1988 to $174 million from the current level of $141 million. Since we were looking at very severe restraints on the other side, we asked the question of whether it would be appropriate, given the exigencies of the budget circumstances, to request a one-year transfer of some of the revenues, and to put the revenues into Service operations, for a year while trying to meet the deficit targets. I am not quite sure as to where the genesis was.

Senator BREAUX. How do you suggest we try and sell that to the sportsmen of this country? They were sold a user fee for a specific purpose—and this Administration consistently has spoken so eloquently about the need for user fees—now we have an example of one that's in place and working; and the first thing you do—and this isn't the first time you've tried it, you tried it last year—the first thing you try and do is transfer the money to some program that those who pay the fee know nothing about. How do you keep faith with those sportsmen of this country with a request like that? You haven't asked for any change in the legislation. You're just asking for an arbitrary decision by bureaucrats, professional as you may be, that you think it ought to be used for something else. How do we sell that to the American sportsmen?

Mr. HORN. I think given the budget pressures that the Government is facing—not only within the Department, but on an across-the-board basis—that in order to keep the Service's programs operating the one-time transfer was necessary. The Secretary and I agonized over this in considerable detail and came to this conclusion since, even with this $25 million proposed transfer, the program still grows from $141 for fiscal year 1987 to $149 million in fiscal year 1988.

Senator BREAUX. Well, sure it does, because sportsmen are being taxed for a specific purpose that we, Congress, and the Administration said it was going to be used for. I just can't understand you trying to do it without trying to change the authorization. Maybe you're trying to do that, too.

Mr. HORN. I believe that when this issue was first raised two years ago, there was an effort to change the entire program and to change the authorizing legislation. Because of our commitment to the program—and I am aware of the Secretary's commitment to the program—we decided that it was inappropriate to try to change the fundamental legislation, that is, in essence, an entitlement program. Instead we decided to opt for a one-time transfer of funds without changing the underlying entitlement. We did not try to undo the authorizing legislation because we think that it is a successful program. What we are asking for is a one-time modification driven by budget pressures and budget pressures only.

Senator MITCHELL. The Senator's time has expired.

Senator Reid?

Senator REID. What are the plans that you have for the stewardship and management of the Ash Meadows National Wildlife Refuge?

Mr. DUNKLE. I would ask Mr. Doddridge to comment on that.

Mr. DODDRIDGE. Senator, we will be requesting the reprogramming of $825,000 of fiscal year 1986 funds to satisfy some of the acquisition needs for the Ash Meadows National Wildlife Refuge.

Senator REID. So as far as you're concerned it will be adequately staffed with someone on site to adequately patrol the area? Because the problem has been in the past that there has been damage to the area as the result of no one being there.

Mr. DODDRIDGE. Mr. Chairman, may I ask Mr. Stieglitz, who is the Assistant Director for Refuges and Wildlife, to answer Senator Reid's question?

Senator MITCHELL. Sure. Come on up and take a mike, here.

Mr. STIEGLITZ. Senator Reid, yes, we are in the process of staffing Ash Meadows Refuge. We have an individual hired; he, in effect, will be an assistant manager reporting to the manager at Desert National Wildlife Refuge. Unfortunately, the individual whom we hired suffered an injury while undergoing law enforcement training, and his full performance is going to be delayed a little bit; we do hope, however, to have him on site, headquartered in the immediate area of the refuge, within a matter of a couple of months.

Senator REID. Mr. Chairman, if I could carry on with some of the interrogation of Mr. Breaux.

I have a real concern with this area of the Administration's budget that we're reviewing. It seems that you're continually working with monies that aren't yours, and I'm using you as a frame of reference for the Administration. This is a law that's been passed that says, "Sportsmen, we're going to take some money from you, and we're going to use it for a specific purpose." I just think it stretches credibility to take this money and use it for something else, or to not use it at all. This isn't the only area; we have the same problem with the highway trust fund and the Social Security trust fund, for example, and yet, we hear a lot from the Administration about honesty in spending. I think we should get a little honesty in how we deal with these budgets because it's nothing but a sham, what we're doing with this budget.

What's going to happen to all the other users' fees that are requested, or tax enhancements that aren't being called taxes? I just think that the Wallop-Breaux money is to be set aside by virtue of an act passed by this Congress, signed by the President, and I think we should stick with that. If we're generating too much money, then we should come back and change the law but I don't think the Administration has any right to arbitrarily transfer these monies. I'm not sure that requires an answer, but it certainly is how I feel about this whole budgetary process.

Senator MITCHELL. I thank the Senator. So far, it's three for three of those who have commented on that.

Senator Baucus?

Senator BAUCUS. Mr. Chairman, it's four for four.

I expect it to be even higher.

I think that Senator Reid has made a very important statement, and it's one I share with him not only based upon just the concept and the integrity of the program as outlined by the Senator from Nevada, but also based upon my direct experience in talking to the folks at home, particularly sportsmen. It's incredible to me how much they're willing to give of their income for earmarked programs such as this. They want more, in fact; you, Mr. Director, know that. You're from my home State. I must tell you that over and over again I am astounded—perhaps that's a bit strong—but I'm certainly impressed with the intensity of sportsmen's groups, at least in my State—I can't speak to groups in other States, but at least in my State—the degree to which they like these programs and want these programs, and I expect their outrage to have their fees directed elsewhere.

Frankly, I'm a bit surprised you would even come up here with this kind of a proposal. It's just a waste of time. OMB knows it; you know it; we all know it; why go through it all? Why go through this charade of trying to transfer something that we know should not be transferred?

I know there are budget pressures, but this is the kind of proposal which is not reflective of the budget priorities of the country generally, certainly when there are specific legislative revisions like the Wallop-Breaux amendment. I am frankly disappointed that you all come up here with this kind of request.

Thank you, Mr. Chairman. I also have some questions I'd like to submit to the Department to be answered appropriately.

Senator MITCHELL. They will be submitted along with questions from Senator Warner and myself.

I'm going to recognize Senator Chafee now, and then I'll have to leave to go to another meeting, and I've asked Senator Breaux to chair the meeting to its completion.

I thank you very much for coming, and I think it's clear that your budget proposal will not be accepted by the committee. That's probably not too big a surprise to the two of you, but we'll look forward to working with you in devising what we think is a more realistic budget.

Senator Chafee?

Senator CHAFEE. Thank you, Mr. Chairman.

Mr. Horn, Mr. Dunkle, I find this budget unacceptable. As you know, in our conversations together I've always stressed the need to acquire more lands, particularly habitat; and here—am I correct in saying—let's just take the rescissions. The funds for acquisition of refuge lands and endangered species habitat would be reduced $26 million. I mean, it's a pittance anyway; from $42 million to $15 million, a 63 percent reduction. That was the major acquisition sum, I guess. Am I correct there, Mr. Horn?

Mr. HORN. We are seeking a proposed rescission for the Land and Water Conservation Account.

Mr. DODDRIDGE. Mr. Chairman, if I might state, although $26 million was proposed for rescission from the 1987 budget, the Service had already allocated or obligated $14 million of the total amount appropriated. So therefore, some progress has been made by Service.

Senator CHAFEE. I don't get it. What do you mean, allocated?

Let's start over. Of the rescission of $26 million or $27 million, you say they had already allocated *x* amount?

Mr. DODDRIDGE. Let me correct myself. I'm sorry, Senator. We had an original proposed rescission of more than that, but the Service—of the funds appropriated for this current year—had already obligated $14 million. So there is still $26 million proposed for rescission, but the Service had already, based on funds obligated or authorized by the Congress, spent $14 million.

Senator CHAFEE. Was that $14 million of the $26 million?

Mr. DODDRIDGE. No, sir. In addition to.

Senator CHAFEE. What you're saying is that the rescission would have been bigger, but you had already obligated it?

Mr. DODDRIDGE. That's correct, sir.

Senator CHAFEE. Are we meant to cheer over that? I don't understand what's going on down there. If the Congress appropriates what is a minuscule amount of money for acquisition, $42 million, why don't you hustle out there and spend it and get the wetlands and get the habitat?

Mr. HORN. Let me make two comments, one on the procedural and one from a policy perspective.

On the procedural aspect, once Congress has appropriated funds we have begun to go out and obligate those funds to purchase the specified lands on both the National Park Service side and the Fish and Wildlife Service side. Athough Congress appropriated $40 million we, working through our realty officers, had obligated $14 million by the time the budget proposal and submission came up. At that time, an across-the-board decision was made, departmental-wide, that basically all Congressional add-ons made for the fiscal 1987 budget above and beyond the President's request would be proposed for rescission if we had not already obligated the funds. This decision was, again, driven by the overall effort to meet deficit reduction targets.

Mr. Chairman, let me add that we have had within the Service four tools at our disposal for land acquisition. These include the funds in the Migratory Bird Conservation Account, monies appropriated through the Land and Water Conservation Fund; our efforts to pursue land exchanges and donations and, finally, what I call "in-kind contributions." Most of these contributions stem from the provisions added in the conservation title of the farm bill.

Because of the Emergency Wetlands Resources Act which this committee worked so diligently on and was able to pass and get signed into law last fall, the Migratory Bird Conservation Fund will more than double in size in fiscal year 1988; it will be approximately $38 million in fiscal year 1988 as opposed to approximately $18 million in fiscal year 1987. Our ability to acquire wetlands, therefor has been substantially enhanced because of the MBCF funding.

As I indicated in my statement, we are actively pursuing land exchanges on a broad array of fronts, and we have some opportunities to acquire important lands while keeping costs down. Finally, we are working with the Agriculture Department very closely, Deputy Secretary Meyers, regarding what I call "in-kind arrangements" afforded to us by the farm bill.

The one land acquisition tool that we are proposing to take off the table for a temporary period is the LWCF, the Land and Water Conservation Fund, based solely on the need to control expenditures. This is not due to any antipathy toward Federal land acquisition, nor is it to be read as a signal that we do not think that land should be acquired. We do believe, however, when we look at the four tools available to us, and because of the cost implications, that we use of the LWCF fund can be postponed for a while until we get the budget under control.

Senator **Chafee**. Well, I'm not for that. It seems to me that with the price of real estate going out of sight in most sections of the country—now, I know there are certain sections where land values have fallen—but with habitat disappearing, with wetlands being endangered as they are, it seems to me that now is the time to move. I personally am far stronger for acquisition; and if cutbacks have to be made somewhere, I'd take it out of construction, even out of maintenance. But the acquisition is the thing, in my judgment, that we've got to move so quickly on because it's just not going to be there. The population of the Nation is growing and every kind of pressure is on.

I don't know how much time I've got, Mr. Chairman.

Senator **Breaux** [assuming chair]. You're doing well.

Senator **Chafee**. Good.

I share the sentiments expressed previously on the Wallop-Breaux funds. It seems to me that's a dedicated fund, and I think to invade it is wrong.

I share the general disappointment over the budget you submitted, and I know you folks are driven by OMB and the Administration. But nonetheless, I think this will require considerable working over.

I also see you cut out the anadromous fish funding.

Mr. HORN. There has been a general policy for the last few years that, except for the dedicated funds, all of the discretionary State grant programs, be including endangered species, anadromous fish, and Alaska subsistence, will not be funded for deficit reduction purposes.

Senator CHAFEE. Let me just say this, that it's been my experience from seeing it from the State level that the Federal Government contribution to the State acquisition efforts is extremely important. It's an incentive for the States to step up there; and absent the Federal Government coming in with a contribution—I'm not saying it's got to be half—but absent a contribution, I regretfully believe that the States won't do an awful lot. And so therefore, for way more than just symbolic reasons—but symbolism is a part of it; the Federal Government's continued contribution to State acquisitions is very important.

Mr. HORN. Two factors have been involved in our cutbacks on the State side of the Land and Water Conservation Fund. We have over the course of the LWCF program, invested $5 billion to $6 billion in State acquisitions over the years. Anybody who travels around and looks at many of the State park and refuge systems understands the important role that the LWCF money from the Federal side has played. Given the level of that investment, and the need to restrain discretionary expenditures, we have concluded that maintaining operations for our refuge and park systems have to be our first priority. Some of these other things, albeit good programs, are not of adequate priority given the constrained budget situation.

Acquisition under the LWCF is not a bad program; however, it is not of sufficient priority when compared to the need to effectively operate the refuge system and the park system that we have under our charge.

Senator CHAFEE. All right. One final half a minute, if I may, Mr. Chairman.

I think it's important to remember that we're all in this together. Whether a wetland is acquired by the State or it's acquired by the Federal Government really doesn't make any difference, as long as it's acquired. So if your money is an incentive to get matching funds or more from another source, i.e., the States, to acquire some of this habitat, then we're all winners. You heard the "we" meaning all the people, Federal, State, whoever we are—have all benefitted by a slight, modest infusion of funds by the Federal Government; that the wetlands, the habitat is acquired, I think, is important to always bear in mind.

Mr. HORN. I think, Mr. Chairman, as a matter of policy we agree. I worked with the committee very closely last year on the emergency wetlands bill—we worked and supported the expansion of authority under the Land and Water Conservation Fund so that LWCF money may now be used for wetlands acquisition. Prior to enactment of that bill last year, this authorization did not exist. So I think as a matter of policy, we agree; I think here it's just a function of what the budget priorities should be—and obviously, what we sent to you reflects the way we see the priorities. Right now, given all the constraints, State grants aren't quite making it over the hurdle.

Senator CHAFEE. Thank you.

Thank you, Mr. Chairman.

Senator BREAUX. Thank you, Senator.

You mentioned something that needs elaboration. Last year Senator Chafee and Senator Mitchell and myself in the House authored the Emergency Wetlands Acquisition Act. It raised the price of the duck stamp up to $10, and we were telling hunters that it was going to be used for wetland acquisition. We removed the prohibition, as I remember, from the use of Migratory Bird Conservation Funds for the purchase of Land and Water Conservation areas. But you're not trying to use any of the Migratory Bird Funds for the purchase of wetlands in this budget, are you?

Mr. HORN. Yes. The budget proposes the full use of the $37.6 million in the Migratory Bird Conservation Account, and 100 percent of this amount will be obligated, assuming that the Migratory Bird Conservation Commission concurs in fiscal year 1988.

Senator BREAUX. What about Land and Water Conservation Funds to purchase migratory bird areas?

Mr. HORN. Are you referring to the bill that was recently passed?

Senator BREAUX. That's right.

Mr. HORN. We did not ask for any money for that purpose because of the rationale that I articulated earlier.

Senator BREAUX. All right. Do you have any requests for the acquisition of parklands?

Mr. HORN. We have requested $15 million for hardships and administrative costs. This amount would be the equivalent of the $1.6 million request that we have requested for the Fish and Wildlife Service's administrative costs.

Senator BREAUX. That's another subject, of course, but it seems like every year we see requests for parklands, with zero requests for funding for refuge acquisition.

Mr. HORN. As a matter of fact, given the growth in the Migratory Bird Conservation Account, the entire real estate operation of the Fish and Wildlife Service will be around $40 million. We are proposing about $15 million for the entire real estate function of the National Park Service. Therefore, the Service is considerably ahead this year under our proposal.

Senator BREAUX. Through the user fees?

Mr. HORN. Yes.

Senator BREAUX. Let's talk about the Arctic National Wildlife Refuge. You were around when we wrote the act back in—what—1978, I guess?

Mr. HORN. Yes, 1978 or 1979.

Senator BREAUX. We set up the plan to study that area and report, ultimately, to Congress with the request. Elaborate more. The only thing you said in your testimony was, "A final 1002 report is expected early this year; related wildlife population studies and the preparation of a comprehensive conservation plan for the Arctic Refuge will be a part of fiscal year 1988 Service activities on the North Slope."

What does all that mean?

Mr. HORN. Allow me to provide some brief background. We issued the draft report under my signature in late November for a public comment period. We have received over 10,000 comments during the 75-day comment period. We are presently reviewing those comments and revising the report as we deem necessary. We anticipate that the Secretary will shortly be reviewing the comments, the report, and making his decision as to what recommendation he wants to tender to Congress. We will then finalize the report. We expect to transmit it to the Congress during the first half of April.

Senator BREAUX. Can you tell us what things have occurred leading up to the preparation of the report? Were seismic studies, etc., done in that area?

Mr. HORN. The program proceeded on two tracks. The first track was to do a comprehensive biological inventory of the coastal plain area of the refuge. We have assembled, under the direction of the Fish and Wildlife Service and almost on an annual basis since 1981, what are called the "baseline reports." We would probably need a U-Haul-It to deliver to the committee all the documentation and reports that have been assembled on the caribou population, the musk oxen, the Banks Island snow geese, polar bear den sites, the usage of the area by grizzly bears, and such. This project has been on-going and will continue even past the date when the report is transmitted. This is the point which my statement addresses.

Starting in 1983, we commenced winter seismic work during the period when the wildlife has migrated away from the coastal plain and you have the balmy temperatures of 45 below zero! Approximately 700 to 800 miles of seismic lines were shot over the course of two winters. Coupled with surficial geology work done during the summers at other times, we were able to assemble a relatively comprehensive look at the subsurface resources.

All of the information that has been generated on both the geological side and the biological side has been synthesized in the 1002 report that was issued in November.

When the Congress was considering the 1002 area, we were aware that this area possessed world-class wildlife resources. The big outstanding question was the hydrocarbon potential? Based on the work that we have seen and the analyses done by the U.S. Geological Survey, the seismic data indicate the existence of at least 26 major structures capable of holding economic amounts of oil and gas. Some of these areas are massive and are physically larger than the structures that produced the 10 billion barrels at Prudhoe Bay. This information has led the geology side of the Department to conclude that the coastal plain is the most outstanding frontier oil and gas area left in the United States. At the same time, the report describes the potential impact on wildlife if Congress were to open that area for subsequent development.

Senator **Breaux**. Is that area currently still under the same basic compatibility test for mineral development as other refuges are?

Mr. **Horn**. Right now, none of these tests apply. Congress has said to the Department, "Thou shalt not do anything except study this area until we come back and tell you how we want to deal with it in the future, after we have received this report." How Congress decides to deal with it remains to be seen.

Senator **Breaux**. Is the Administration going to recommend legislation?

Mr. **Horn**. We right now are examining one of two options, either to send up draft legislation that would implement the Secretary's recommendation, whatever it may be, or to enunciate a series of what I will refer to as "legislative principles" that should be included in any legislation. We are not sure which approach we want to employ yet.

Senator **Breaux**. What's the time frame on a possible recommendation?

Mr. **Horn**. As I noted, I expect that the Secretary will make that decision sometime during the month of March. We will then go through the process of getting the report printed and it will be transmitted to you in April.

Senator **Breaux**. Let me talk about another subject. Are you still under a legislative prohibition on mandating implementation of steel shot regulations by the States?

Mr. **Horn**. What we are under is the Stevens amendment, which is still attached to our appropriations bill. This amendment says, in essence, that we cannot directly mandate the use of steel shot in a State unless the State concurs.

Senator **Breaux**. How are you trying to get around that?

Mr. **Horn**. Courtesy of our third equal branch of Government, the judiciary, we adopted a policy two years ago in which we said, in response to initial court rulings, that we would not impose the use of steel shot. But that if a State refused to adopt a steel shot zone in a certain area, we would exercise our discretion under the Migratory Bird Treaty Act and not open that area to migratory waterfowl hunting. The net result has been State compliance.

Senator **Breaux**. What judicial decision do you refer to that makes you feel like what you have to do is to take any action possible to undercut what I think is a pretty clear—you can argue about the merits of it—but a pretty clear directive from the Congress not to do anything to implement steel shot regulations without the concurrence of the affected State?

Mr. **Horn**. The National Wildlife Federation sued us in District Court in California alleging that, notwithstanding the Stevens amendment proscription, that we were in violation of our Migratory Bird Treaty Act obligations, our Bald Eagle Protection Act obligations, and our Endangered Species Act obligations by not taking action to ban steel shot because of the impact on eagles and endangered species and, of course, the overall mortality rates associated with plumbism from the ingestion of spent lead shot.

The allegations in that court suit were that because we had discretion to open or not open waterfowl hunting, the requirement to use steel shot should be one of the preconditions to permitting hunting to occur. The allegations were that steel shot should be used in certain "hot spot" areas where there was a demonstrated problem or a high probability of a problem. We lost the original case in the District Court; that decision accelerated our schedule and caused us to basically adopt the policy I enunciated. We then set forth an approach of designating "hot spots" and special zones in the country.

Senator Breaux. Let me talk about—before you get to what you did, what did the Service do with the case? Did you not appeal the District Court decision, or what?

Mr. Horn. I do not recall whether we appealed or not; however, we ended up before the same judge later on under our next approach. I frankly do not recall, but I will provide that information to you.

I have been informed that we did not appeal. Since the decision stood, we changed our program to bring us into accordance with the District Court ruling.

Senator Breaux. This is probably a case of "first instance" in a District Court in one State. Can you give me the background as to why it wasn't appealed to an appellate court?

Mr. Horn. In consultation with our attorneys and the Justice Department and on the basis of the District Court's ruling, I remember discussing what our prospects were of success in appealing to the Ninth Circuit on similar cases like this. The conclusion was that it made sense not to appeal this particular decision.

I have also been told that this situation developed two weeks before the hunting regulations were due to be issued, and that an appeal would have had the effect of possibly putting the entire fall hunting season at risk.

Senator Breaux. See, the problem I have, you're faced with Congress saying, don't do something. You have a District Court that says, we don't think that's what you ought to do. You make a decision not to appeal a District Court ruling; well, the case is probably the first instance of that type of approach at all. Did you consult with Congress? Did you talk with the appropriate committee chairmen who helped write the legislation? Did you consult with Senator Stevens?

Mr. Horn. I talked personally to Senator McClure and Senator Stevens at the time that decision was made. In addition to that, we were working very closely with all of the affected parties including the State fish and game agencies, the International Association of Fish and Wildlife Agency, and the ammunition manufacturers. After the State fish and game agencies proposed a five-year phase-in which was the five-year phase-in, that we subsequently adopted, we tried to reach an out-of-court settlement with the National Wildlife Federation but they contended that even this proposal was insufficient and inadequate. Fortunately, this time the court saw fit to rule in our favor and dismissed the case and hence we are now in this five-year process.

Senator Breaux. Now, what about the five-year process? I've got a note on my desk that says you shall do it by this November, or "thou shalt not hunt." It doesn't sound like five years to me.

Mr. Horn. Well, what we have is a five-year phase-in. In other words, we have established, in cooperation with the States, criteria which say that in certain areas where there is the highest concentration of waterfowl hunting, steel shot requirements will be triggered earlier. In other words, in a close to home example, if you hunted Dorchester County on the Eastern Shore last fall, steel shot was required; if you hunted the other parts of the Eastern Shore, lead shot was permissible. Next year, a couple of the other counties on the Eastern Shore will be triggered.

Senator BREAUX. Let's talk about Louisiana. Last year no parishes or counties had it; this year, in your proposed regs, 24 will.

Mr. HORN. We have uniform criteria based on how many ducks are killed on a per county or per acre basis, which we use as the indicator of what the density of waterfowl hunting is. Those criteria are then applied on a national basis, and the steel shot requirement is triggered for every county that crosses over the threshold each year. This process continues until all counties will then be required to use steel shot.

Senator BREAUX. Well, everybody has their opinion on it, and some differ dramatically from mine. I assure you, this is not the last visitation of this question, I think, legislatively. And I think it's clear that what you all have done is to agree with a District Court decision without the benefit of appealing it at all, a case of first instance, anywhere in the United States that was not taken to a higher level at all.

Mr. HORN. Mr. Chairman, let me add that——

Senator BREAUX. In light of a direct prohibition from Congress that was signed into law by the President saying, don't do this. We can argue the merits; I'm talking about the procedure right now. I think that it's just intolerable that nobody even had enough courage or vision to say, let's get a final ruling on this legislatively.

Mr. HORN. Procedurally, we had hours of discussions with all of the affected interests.

Senator BREAUX. You didn't talk to me. I'm not saying I'm an affected interest, but as Chairman of the Fish and Wildlife Committee last year in the House, and a State that has the most to lose—or gain, depending on your viewpoint on it—nobody talked to me about it. It's not right to say you spoke with all the affected parties. You may have selected some, but you didn't select some that I think were directly and dramatically affected by it. Did you call me?

Mr. HORN. No. I know I talked to the committee staff at least on a few occasions.

Senator BREAUX. I just think the procedure stinks, to be very kind about it. I just can't imagine flying in the face of a direct legislative prohibition from Congress because of a District Court decision that, rightfully or wrongfully, was never appealed. I mean, not even to find out—I can take you probably to a lot of areas and get different viewpoints on that, depending on where the suit is filed.

You know how I feel about it. I just think that the way it was handled was very, very bad. And we can argue about whether steel shot ends up killing more ducks because of crippling losses—studies have shown that to be true in some areas—where they should be implemented; I just think that it's not the right way to handle it. And regardless of how we feel on the science of it, which is a whole subject for another discussion, I want to do what's best for the waterfowl population. It is dramatically decreasing for a number of reasons, but I think the evidence is still clearly out on whether this is a positive step or, in effect, a negative step.

I think the Chairman has other questions that he will be submitting to the Service for you to respond to in writing.

With that, the committee will stand adjourned until the further call of the Chair.

[Whereupon, at 10:45 a.m., the committee was adjourned.]

[Statements submitted for the record and responses to additional questions follow:]

OPENING STATEMENT
BY
SENATOR QUENTIN N. BURDICK
AT THE HEARING ON THE
FISCAL YEAR 1988 BUDGET REQUEST
FOR THE
U.S. FISH AND WILDLIFE SERVICE

February 17, 1987

This is the second hearing we are conducting as part of the Committee's review of the President's budget proposals for fiscal year 1988. Earlier this month we heard from the Environmental Protection Agency.

This morning's hearing is being conducted at the request of Senator Mitchell, who is chairman of the Environmental Protection Subcommittee, which has jurisdiction over fish and wildlife matters.

I wish to extend our gratitude to the Assistant Secretary of the Interior for Fish, Wildlife, Parks, Bill Horn, and the Director of the U.S. Fish and Wildlife Service, Frank Dunkle, for the cooperation we have received in preparing for this year's review of the President's fiscal year 1988 budget request for the U.S. Fish and Wildlife Service.

In contrast to nearly all of the other agencies within this Committee's jurisdiction, the Administration has proposed sharp reductions for the Fish and Wildlife Service. Overall, the President's budget proposes to rescind nearly 20% of the amount appropriated to the Service for 1987.

Spending would be reduced even further in fiscal year 1988. Cutbacks of this magnitude are not consistent with wise management of the Nation's fish and wildlife and jeopardize the future of hunting, fishing and simple enjoyment of these resources.

I am particularly concerned about the Administration's proposal to offset these large spending cuts in the Federal Fish and Wildlife Service programs by diverting $25 million from the Wallop-Breaux Sport Fish Restoration Account.

This supposedly one-time transfer would reduce the funds available to my State for sport fish management by roughly $250,000. These funds are excise tax receipts which North Dakota fishermen paid to enhance fishing in North Dakota, not to make a voluntary contribution to deficit reduction.

I also am disappointed that the President's budget proposes to provide only 52% of the full payments in lieu of taxes to counties which contain Fish and Wildlife Service lands in fiscal year 1988. That's even less than the amount provided for 1987.

I have a number of questions about these funding proposals and the many other programs which are being considered for large reductions. I appreciate Senator Mitchell's efforts to ask for a hearing so that we may be better able to get some answers. I am sure it will be useful in helping the Committee shape its response.

February 17, 1987

Opening Statement of Senator Bob Graham
Environment and Public Works Committee
Hearing on FY 88 Budget Request
Fish and Wildlife Service

Mr. Chairman, thank you for affording us this opportunity to review the Fish and Wildlife Service budget request for Fiscal Year 1988. I am eager to hear the testimony of Assistant Secretary Horn and of Mr. Dunkle, Fish and Wildlife Director.

While I am delighted at the increase in funding to the Migratory Bird Conservation Account pursuant to the Emergency Wetlands Resources Act, frankly, I am astonished at the proposals to reduce and rescind funding for other programs vital to the protection of wildlife. The Fish and Wildlife budget summary states that the Service has a principal federal responsibility to "conserve, protect, and enhance fish and wildlife and their habitats." Then, as we read along, we see that the Fish and Wildlife Service proposes to eliminate funding for the acquisition of refuge lands and endangered species habitats. Furthermore, the Service proposes to rescind 63 percent of the 1987 funding for this acquistion.

This proposal eliminates $3 million for the acquisition of property in the Fakahatchee Strand for the protection of the habitat of the endangered Florida Panther. There are approximately only 30 of these panthers accounted for in the entire United States. Senator Chiles and myself have recently introduced legislation to acquire 136,000 acres for the Big Cypress Preserve Addition, extremely important in preserving the Florida Panther habitat.

Another effort we have embarked upon in Florida entails incorporating animal crossings into our conversion of a state highway to Interstate 75. These crossings are aimed once again at the protection of the Florida Panther. Protection of this endangered animal through the acquisition of land in the Fakahatchee Strand would be virtually impossible without the Endangered Species Act land acquistion funds currently available. Our efforts in Florida become defeated by any attempt to eliminate this funding.

Realizing the rising interest in the use of land exchanges for purposes of acquiring land, I would like to emphasize that, while land exchanges can serve as acceptable approaches to acquistion, we cannot rely on exchanges alone to accomplish acquisitions that can realistically meet the objectives of wildlife conservation and protection. For example, the proposed

Collier exchange would only provide 81,000 acres of the 136,000 acres to be acquired under the Big Cypress Preserve Addition legislation proposed by Senator Chiles and myself. In this instance, an exchange can in no way substitute for the proposed legislation in acquiring the Preserve Addition.

Under the Fish and Wildlife budget proposal, Florida would lose funding under the Endangered Species Act land acquisition to protect the National Key Deer and fish in the Lower Suwannee River. These existing efforts merely skim the surface of conservation and protection of the fish and wildlife in Florida, as we witness proposals to eliminate the already minimal funding.

A further proposal to eliminate Section 6 state grants for the recovery of threatened and endangered species would have a profound effect on our efforts in Florida. Recovery of the endangered manatee is a high priority in the State, and Section 6 funds enable us to conduct monitoring and surveys of the manatee in order to provide enhanced recovery and protection. Florida would lose approximately $40,000 in recovery funds for the manatee. Loss of $240,000 of Section 6 funds would also affect the Florida Panther. We stand to lose an additional $28,500 for reviewing the prospects of introducing a third population of whooping cranes and about $30,000 in studies for the green turtle. All in all, Florida would be operating at a loss of $388,500 in

SECTION 6 GRANTS IF THIS FUNDING WERE TO BE ELIMINATED. THE STATES ARE NOT CURRENTLY EQUIPPED TO BRIDGE THIS GAP.

MR. CHAIRMAN, THANK YOU AGAIN FOR THIS OPPORTUNITY. I LOOK FORWARD TO HEARING THE TESTIMONY OF ASSISTANT SECRETARY HORN AND DIRECTOR OF FISH AND WILDLIFE, MR. DUNKLE.

TESTIMONY OF WILLIAM P. HORN, ASSISTANT SECRETARY FOR FISH AND WILDLIFE AND PARKS, DEPARTMENT OF THE INTERIOR, BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, CONCERNING THE FISCAL YEAR 1988 PROPOSED BUDGET FOR THE U.S. FISH AND WILDLIFE SERVICE.

FEBRUARY 17, 1987

Mr. Chairman, I appreciate this opportunity to appear here today to describe the Administration's FY 1988 proposed budget for the U.S. Fish and Wildlife Service (Service). The budget which has been proposed totals $632 million, a decrease of $54.6 million when compared to the 1987 appropriation. These reductions are partially offset by program increases above the 1987 appropriation in priority areas such as contaminant research and monitoring, construction related to dam safety and remedial actions, and research on the woodcock, one of the principal declining migratory game birds. Reductions are proposed for deferrable activities such as: $40 million from land acquisition, $14 million from refuge maintenance, and $7 million from the proposed termination of State grant programs which the States should and can assume a greater responsibility for. Thus, we believe the proposed budget represents an appropriate mix of programs to fund priority Service activities, balanced with the $70.5 million in rescissions in FY 1987 and reductions in FY 1988 required to meet deficit reduction targets established by the Gramm-Rudman-Hollings Balanced Budget and Emergency Deficit Control Act.

Frank Dunkle, Director of the Fish and Wildlife Service, will be presenting specific highlights of the Service's budget proposal for each account. I would like to take this opportunity to outline priority program activities and discuss Service opportunities for alternative land acquisition.

One of my highest priorities has been implementing an entrance fee program on refuges similar to that which exists for many National Park Service units. Thanks to this committee and others in the Congress, for the first time in 22 years the Service now has authority to collect entrance fees on wildlife refuges. Through provisions of the Emergency Wetlands Resources Act of 1986, the Service is authorized to develop and implement a fee collection program on selected refuges. The entrance fee program is scheduled to begin in May, 1987 at selected refuges, with collections in FY 1988 estimated at $8 million dollars. Thirty percent of these funds, or $2.4 million projected for 1988, will assist in offsetting operation and maintenance costs of visitor facilities on the refuges. The other 70 percent of the receipts from entrance fees are to be deposited into the Migratory Bird Conservation Account. Currently, the Service is developing a final implementation package related to refuge fees. Fee schedules and appropriate refuges will be chosen by Service professionals, consistent with the criteria outlined in the legislation. The Service will consult with the Committees prior to implementation of this program.

This Committee can take special pride in the positive benefits of the Emergency Wetlands Resources Act in that 100 percent of the revenues collected through this legislation will be directed toward both the acquisition of important migratory bird habitat and improvement of National Wildlife Refuges. Funding sources authorized by this legislation, such as refuge entrance fees and increases in the price of duck stamps, will expand receipts under the Migratory Bird Conservation Account by an estimated $11 million to acquire 13 thousand acres in 1988. The Service views the Wetlands Act as an important step toward acquiring migratory bird habitat, and the Committee is commended for working with the Administration during the last session to fashion this mutually favorable legislation.

Clearly, both the fee program and the increase in duck stamps will assist in acquiring valuable lands for wildlife. However, given overall fiscal constraints, we must be innovative in the manner in which we meet acquisition objectives. Within the framework of reduced Federal spending, the Service will explore other approaches relative to acquiring priority tracts which do not require significant expenditures. We intend to explore acquisition alternatives, such as cooperative agreements, exchanges, and donations. Over the past several years, exchanges have contributed significantly to conservation efforts by facilitating the exchange of Federal lands with relatively low wildlife values for more important wildlife habitat areas. Since 1980, land exchanges have resulted in the acquisition of 85 thousand acres of refuge lands, worth an estimated $18 million. Such exchanges obviously represent an attractive alternative to expenditure of appropriated funds for land acquisition, but we must be cautious and prudent. For example, when possible tax implications and administrative expenses are considered, land exchanges can be more costly than a sale and purchase combination. We must also be cognizant that many acquisitions will involve continuing Federal costs for protection, development, operation and other costs. Furthermore, the costs of holding lands acquired through exchanges may be many times the cost of holding the land given up in the exchange; e.g., BLM lands. These considerations must be factored into the decisions as to whether or not to pursue an exchange. The Service is currently pursuing additions of 120 thousand acres through two proposed exchanges commonly refered to as Aerojet and Collier.

Recently, the Director of the Service and the Director of the Bureau of Land Management have signed a Memorandum of Understanding for the use of Bureau of Land Management lands in exchanges to acquire needed refuge lands. The Service is also working on several exchange possibilities that will be subject to Congressional action. The Service has prepared legislation as a drafting service for members of the Florida and Nevada delegations, and has held discussions with the Aerojet General Corporation with regard to a draft exchange agreement to implement an interstate land exchange proposed by Aerojet. This would trade wetlands owned by Aerojet in Dade County, Florida, for desert BLM lands northeast of Las Vegas, Nevada. Aerojet would use the Nevada lands as a rocket assembly and testing facility, adding several thousand jobs to the Nevada economy, while the Florida lands would be sold to the local water management district for conservation. The revenues received by the Department would be used to purchase lands at existing refuges in Florida. This exchange will require legislation to implement.

In addition, we are actively working with two Florida corporations to exchange property owned by the Department of the Interior in Phoenix, Arizona, for 115 thousand acres of wetlands in Collier County, Florida, plus a cash payment to the Department presently estimated at $50 million. The exchange involves a cooperative effort between the National Park Service and Fish and Wildlife Service. The largest tract of the acquired land would be added to the Big Cypress National Preserve, and the other areas would add to the Federal estate: (1) habitat for the Florida Panther, and (2) the Ten Thousand Islands area off the southwest coast of Florida. The uses for the $50 million have not been determined. This approach, which also requires legislation to implement, could be a substitute for legislation passed by the House last year and reintroduced this year in both Houses (S. 90) to purchase all of the area we propose to add to the Big Cypress National Preserve, plus other lands in the vicinity. At this point, no formal contract with the Collier interests has been made and no final decision by the Administration has been made. It is our intention to submit this proposal to Congress for consideration this year.

Finally, Mr. Chairman, the Service intends to complete the five-year study on the potential impacts of oil and gas leasing and development on the Arctic National Wildlife Refuge. The north slope of Alaska holds the most significant reserves of oil and gas in the United States, with 20 percent of our domestic production currently coming from Prudhoe Bay and adjacent fields. One hundred miles to the east of the existing north slope fields, along similar coastal plain topography, lie portions of the Arctic National Wildlife Refuge. Pursuant to Section 1002 of the Alaska National Interest Lands Conservation Act, the Service has prepared and released a draft report which assesses hydrocarbon potential on the Arctic Refuge, as well as possible impacts to fish, wildlife, and wilderness values as a result of exploration and development. Although a final 1002 report is expected early this year, related wildlife population studies and the preparation of a comprehensive conservation plan for the Arctic Refuge will be a part of FY 1988 Service activities on the north slope.

Mr. Chairman, this concludes my prepared statement. Director Dunkle is prepared to summarize his statement on the budget at this time, after which we would be pleased to answer any questions.

TESTIMONY OF FRANK H. DUNKLE, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, CONCERNING THE FISCAL YEAR 1988 PROPOSED BUDGET FOR THE U.S. FISH AND WILDLIFE SERVICE.

FEBRUARY 17, 1987

Mr. Chairman, I am pleased to be here today to describe the President's proposed budget for 1988 for the U.S. Fish and Wildlife Service (Service). This proposed budget totals $632 million, and represents a carefully coordinated program to fund Service activities related to development, management and conservation of the Nation's fish and wildlife resources. In keeping with efforts to reduce overall Federal spending, the 1988 proposed budget also includes proposed 1987 rescissions totalling $70.5 million. Reductions are necessary to meet the deficit reduction targets established by the Gramm-Rudman-Hollings Balanced Budget and Emergency Deficit Control Act.

The mission of the Service is to conserve, protect and enhance fish and wildlife and their habitats for the continuing benefit of people. The Service has principal responsibility and authority for migratory birds, threatened and endangered species, certain marine mammals, and lands under Service control. Activities related to carrying out our mission are primarily funded through seven main accounts. The following description of the proposed 1988 budget notes each of the Service's major accounts, reporting both increases and decreases from last fiscal year. Special emphasis is placed on outlining the restructured budget activities under the Service's primary account, Resource Management.

Resource Management is the broad Service account which includes the activities of Fish and Wildlife Enhancement, Refuges and Wildlife, Fisheries, Research and Development, and General Administration. The 1988 funding proposal for Resource Management is $302.2 million, $5.2 million above the current estimate for 1987. Included in this request is $11.3 million related to anticipated costs of the new Federal retirement system and $4.1 million for increased FY 1987 pay costs. A total of $25 million of the 1988 request for Resource Management is derived from a proposed one-time transfer of receipts from the Sport Fish Restoration Account.

This account was established by provisions of the Dingell-Johnson Federal Aid in Fish Restoration Program, and provides grants to the States for the management and enhancement of sport fish resources. The 1984 Wallop-Breaux amendments significantly expanded funds available to this account, to the extent that the $25 million transfer will still leave an estimated $149 million for the Sport Fish Restoration Account in 1988, an increase of $8 million over 1987.

The budget proposes a total of $37.5 million for the Fisheries Activity, including the continuation of the operation of all national fish hatcheries in order to meet our high priority Federal restoration and production responsibilities. The budget reflects an increase of $1.2 million for the Lower Snake River Compensation Plan (LSRCP), to continue operations at two new facilities and to begin operations at a third facility that was scheduled for completion in 1987.

Total requests for the Refuges and Wildlife Activity is $122.1 million in 1988. As part of a Departmentwide initiative, the Service requests $1.2 million to identify the extent of irrigation drainage contamination on Departmental lands, including refuges, and to assist in determining practicable solutions where problems may exist. Specific emphasis will be placed on identifying and resolving contaminant problems in the earliest stages. The Service has included a total of $22.1 million in 1988 for research and monitoring activities related to the effects of contaminants on fish and wildlife resources.

Total funding for refuge maintenance is $17.6 million. Funding for the Accelerated Refuge Maintenance Management (ARMM) Program is a proposed $3.2 million compared to $8.8 million in 1987. This brings the five-year cumulative funding level for ARMM to $61.6 million. This long-term effort to eliminate maintenance deficiencies on refuges has enabled the Service to achieve substantial accomplishments, which will be continued at reduced levels to address specific maintenance problems. In addition, 30 percent of collections from the new entrance fee program at designated refuges, estimated at $2.4 million, will assist in offsetting some operations and maintenance costs of visitor facilities. Collections of entrance fees will begin at 16 refuges in 1987 as authorized by the recent Emergency Wetlands Resources Act of 1986. The Service is also proposing a Supplemental Appropriation for 1987 to provide $2.8 million for 1986 emergency expenditures related to fire suppression activities on units of the refuge system.

The funding request for the Fish and Wildlife Enhancement Activity is $41.7 million. Funding for endangered species will total $23.7 million in 1988 compared to $29.2 million in 1987. Of the $5.5 million reduction, $4.3 million is due to the termination of the state grant program. This program has generated active involvement by most States in endangered species activities which can be expected to continue. A reduction of $710 thousand in Federal recovery actions for some species is proposed since certain projects will be completed in 1987 and others are adequately funded from base resources or private funds.

The request for Research and Development for 1988 totals $51.5 million, including $1.9 million for research facility maintenance. However, a $500,000 reduction is proposed this year in research maintenance because accomplishments in this area in 1987 will bring the facilities within acceptable health and safety limits.

The fifth and final activity within the Resource Management Account is General Administration, now restructured to establish a line/staff management process that facilitates more effective operations and responsiveness to the new or changing demands placed on the Service. The 1988 request for General Administration is $49.4 million. Essential funding adjustments of $603 thousand for fixed costs is included in the total, and covers items such as postage, PAY/PERS, workers compensation and FTS telephone service.

Other appropriations within the Service include Construction (and Anadromous Fish), Migratory Bird Conservation, Land Acquisition, National

Wildlife Refuge Fund, the Dingell-Johnson Sport Fish Restoration Account, and the Pittman-Robertson Wildlife Restoration Account. I will briefly outline our 1988 initiatives funded through these sources.

The 1988 Construction request includes $8.7 million for high priority health and safety projects, including $340 thousand to continue required dam safety inspection and $1.6 million for monitoring of air quality and removal or encapsulation of asbestos from the Patuxent Wildlife Research Center. The request also provides for repair and modification of two high-hazard dams including Greenwood Lake Dam ($1.2 million) and Crab Orchard Dam ($5.5 million). The budget proposes a 1987 rescission of $23.2 million for lower priority construction projects in order to help meet the 1988 Gramm-Rudman-Hollings deficit target.

Total revenues available in the Migratory Bird Conservation Account are estimated to be $37.6 million in 1988. Pursuant to the enactment of the Emergency Wetlands Resources Act of 1986, the price of the duck stamp will be increased for the 1987-1988 hunting year from $7.50 to $10.00 resulting in increased receipts of $2.5 million in 1988. Additionally, this Act provides for the deposit of import duties on arms and ammunition into the Migratory Bird Conservation Account, which is estimated to be $15 million in 1988. This Act further authorizes the collection of entrance fees at National Wildlife Refuges which sustain adequate visitation levels and have an operational fee collection system. Seventy percent of the receipts collected from these refuges will be deposited into the Migratory Bird Conservation Account, providing the potential for $5.6 million for acquisition of additional wetlands in 1988.

The 1988 budget proposes $5.6 million in appropriations for payments to counties in lieu of taxes under the National Wildlife Refuge Fund. Appropriated funds will be supplemented with prior year receipts from the sale of timber, grazing privileges, and minerals rights (approximately $4.6 million).

Although no funds are proposed in 1988 for new land acquisition from the Land and Water Conservation Fund, $1.6 million is requested to allow the Service to continue to support the ongoing acquisition program utilizing carryover balances and to explore a program of alternatives to fee acquisition. These alternatives include negotiating exchanges, easements, and donations for protection of important habitat. A rescission of $26.8 million is proposed in the 1987 land acquisition appropriation to assist in meeting the 1988 deficit reduction target.

By 1988 receipts credited to the Federal Aid in Sport Fish Restoration Account will increase by $136 million since 1985. Receipts to this account in 1988 are anticipated to be $174 million. These funds are used to assist the States in carrying out projects to restore, enhance, and manage sport fish resources. Because of the tremendous growth in the Sport Fish Restoration Account over the last several years, and recognizing our responsibility to restrain Federal spending, a one-time transfer of $25 million to the Resource Management account is proposed. After accounting for this transfer, funding in the Sport Fish Restoration account is expected to increase, from $141 million in 1987 to $149 million in 1988. Funds available for administration and execution of state-requested special projects will total $8.9 million in 1988.

Funding under the Pittman-Robertson Wildlife Restoration account will increase next year, from $109.7 million in 1987 to an estimated $114.0 million in 1988. The increase in payments to States under the P-R account is a result of the anticipated increase in excise tax receipts. These funds are used to restore, enhance and manage wildlife resources in the States and U.S. territories, and for funding State hunter education programs.

In summary, the 1988 request for appropriations which totals $318 million, and permanent funding of $314 million, will provide the Service with adequate resources to address national priorities within the framework of necessary budgetary constraints.

Mr. Chairman, this concludes my prepared statement. I would be pleased to answer any questions you may have.

MAJOR U.S. FISH AND WILDLIFE SERVICE PROPOSED FISCAL YEAR 1987 RESCISSIONS

Program	FY 1987 Appropriation ($000)	Amount Rescinded ($000)	Percent Reduction (%)
Resource Management			
Endangered Species	29,227	6,225	21
Refuge Maintenance	30,801	8,798	29
Hatchery Maintenance	2,835	566	20
Wildlife and Fishery Research	23,558	1,426	6
Construction	24,513	21,200	86
Land Acquisition	42,425	26,763	63
Total Appropriation	**396,275**	**70,463**	**18**

U.S. FISH AND WILDLIFE SERVICE PROPOSED BUDGET FOR FISCAL YEAR 1988

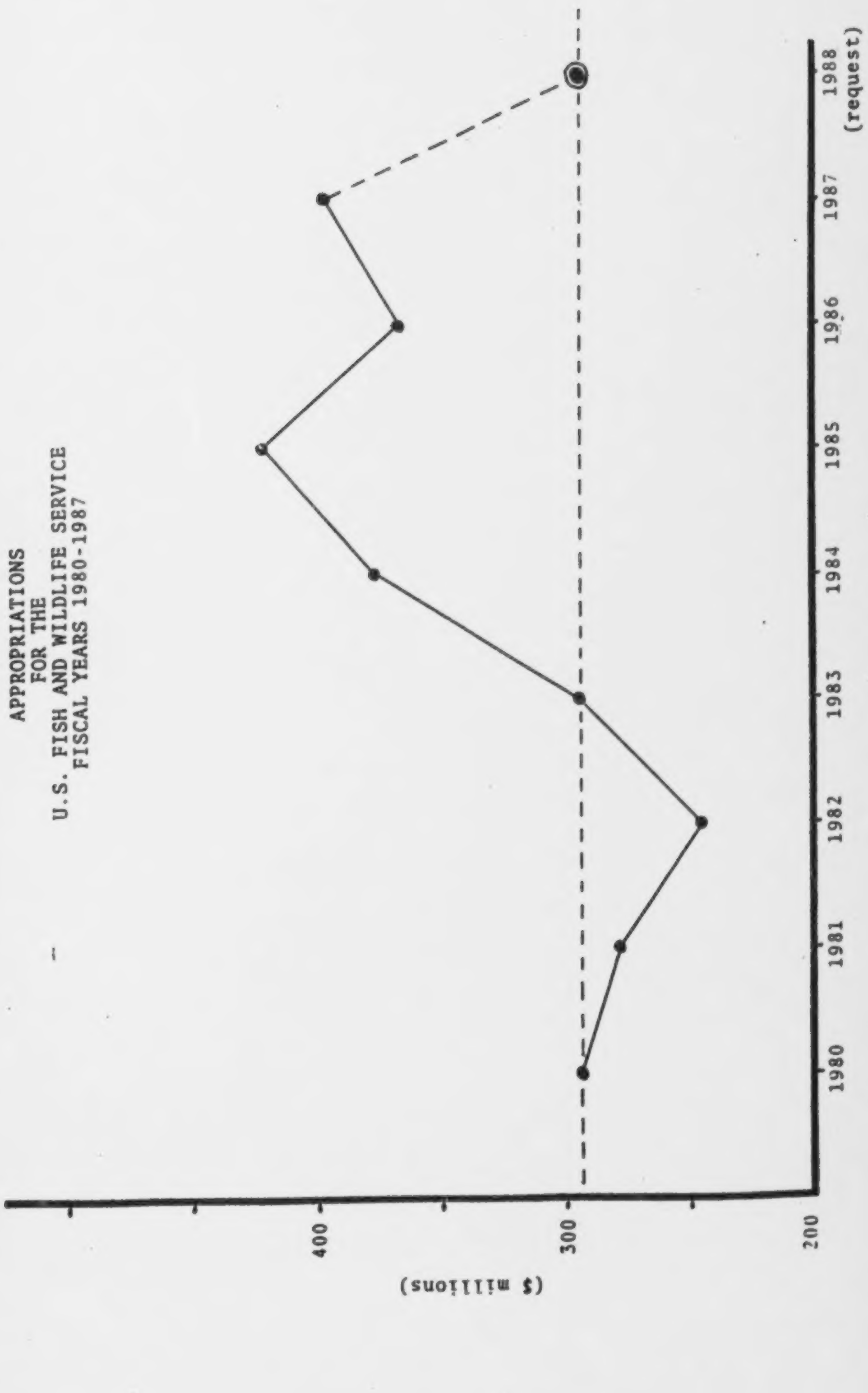
Program	FY 1987 Appropriation ($000)	FY 1988 Request ($000)	Percent Change (%)
Resource Management	314,692	277,203	-12
(with transfer from Sport Fish Account		302,203	-4)
Endangered Species	29,227	23,670	-19
Ecological Services	17,924	18,413	+3
Environmental Contaminants . .	4,947	5,002	+1
Refuge Operations	75,467	78,621	+4
Refuge Maintenance	30,801	17,568	-43
Wildlife and Fishery Law Enforcement	11,843	12,297	+6
Hatchery Maintenance	2,835	2,422	-15
Lower Snake R. Fund	6,380	7,623	+20
Wildlife and Fishery Research	23,558	22,374	-5
Cooperative Units	4,564	4,941	+8
Construction	26,513	8,657	-67
Land Acquisition	42,425	1,639	-96
Payments to Counties in Lieu of Taxes	5,645	5,645	0
Total Appropriations	**396,275**	**293,144**	-26
(with transfer from Sport Fish Account		318,144	-20)
Permanent Accounts — Not Subject to Annual Appropriation			
Migratory Bird Conservation . .	26,500	37,581	+42
P-R Wildlife Restoration . . .	109,688	114,000	+4
W-B Sport Fish Restoration . .	141,016	174,000	+23
(with transfer to Resource Management		149,000	+6)

LAND ACQUISITION

Authorization/Refuge	Request	Add-on	Enacted	Obligated	Rescind	Remaining
Acquisition Management	1,500	250	1,750		250	1,500
Inholdings		1,000	1,000		1,000	0
Specifically Legislated	0	9,850	9,850	(356)	9,494	356
Bogue Chitto		1,000	1,000	(174)	826	174
Bon Secour		500	500	(100)	400	100
Connecticut Coastal		600	600		600	0
Minnesota Valley		1,500	1,500	(82)	1,418	82
San Francisco Bay		1,500	1,500		1,500	0
Tensas		1,000	1,000		1,000	0
Great Dismal Swwamp		750	750		750	0
Bayou Sauvage		3,000	3,000		3,000	0
Endangered Species Act	0	15,100	15,100	(6,411)	8,689	6,411
Ash Meadows		500	500		500	0
Finnegan Cut		1,100	1,100		1,100	0
Florida Panther		3,000	3,000		3,000	0
Hakalau Forest		3,000	3,000		3,000	0
Kirtlands Warbler		300	300		300	0
National Key Deer		2,000	2,000	(1,211)	789	1,211
Sacramento		2,200	2,200	(2,200)	0	2,200
Aransas		3,000	3,000	(3,000)	0	3,000
Refuge Recreation Use	0	7,225	7,225	(4,395)	2,830	4,395
Alligator River		650	650		650	0
Eastern Shore		375	375		375	0
Red Rocks Lake		2,000	2,000	(1,000)	1,000	1,000
Willapa		3,300	3,300	(3,300)	0	3,300
Rachel Carson		900	900	(95)	805	95
Fish and Wildlife Act	0	7,500	7,500	(3,000)	4,500	3,000
Lower Rio Grande		6,000	6,000	(3,000)	3,000	3,000
Lower Suwannee		1,500	1,500		1,500	0
Total	1,500	40,925	42,425	(14,162)	26,763	15,662

CONSTRUCTION AND ANADROMOUS FISH

Subactivity/Project	Requested	Add-on	Enacted	Obligated	Rescind	Remaining
Construction and Anadromous Fish						
Refuges	0	7,320	7,320	(11)	7,309	11
Minnesota Valley, MN		3,320	3,320	(10)	3,310	10
Eastern Shore, VA		400	400		400	0
Kenai, AK		1,500	1,500		1,500	0
Bogue Chitto, LA		1,200	1,200		1,200	0
Kilauea Point, HA		900	900	(1)	899	1
Fish Hatcheries	0	7,413	7,413	(75)	7,338	75
Coleman, CA		2,200	2,200	(75)	2,125	75
Nisqually, WA		4,600	4,600		4,600	0
Northeast Fishery Cntr, PA		613	613		613	0
Research Facilities	0	6,390	6,390	(65)	6,325	65
National Fishery R&D Lab, PA		140	140	(10)	130	10
Northeast Anadromous Lab, MA		2,500	2,500	(55)	2,445	55
Leetown, WV		2,000	2,000		2,000	0
Forensics Lab, OR		1,750	1,750		1,750	0
Dam Safety	2,790	0	2,790		0	2,790
Advance Planning	323	277	600	(49)	228	372
Anadromous Fish	0	2,000	2,000		2,000	0
Total	3,113	23,400	26,513	(200)	23,200	3,313



APPROPRIATIONS
FOR THE
U.S. FISH AND WILDLIFE SERVICE
FISCAL YEARS 1980-1987

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

In Reply Refer To:
FWS/LS

March 31, 1987

Honorable Quentin N. Burdick
Chairman
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

On behalf of the Department of the Interior, I would like to thank you for the opportunity to testify at the February 18 Oversight hearing before the Environment and Public Works Committee on the U.S. Fish and Wildlife Service's FY 1988 Budget Proposal. Enclosed are the responses to questions that were forwarded to the Fish and Wildlife Service for reply subsequent to the hearing.

I hope that this information will assist the Committee with this year's budget review and look forward to working with you during this session of Congress.

Sincerely,

William P Horn
Assistant Secretary for Fish
and Wildlife and Parks

Enclosure

QUESTIONS SUBMITTED BY SENATOR QUENTIN N. BURDICK

(1) Question: Why isn't the proposed transfer of $25 million from the Wallop-Breaux Sport Fish Restoration Account a breach of faith with anglers, boaters and State fish and wildlife agencies? What specific uses would those funds be used for?

Answer: Funds deposited in the Sport Fish Restoration Account of the Aquatic Resources Trust Fund are derived from excise taxes on fishing equipment, taxes on gasoline used in motorboats, import duties on fishing equipment and pleasure boats, and interest earned on investments. Deposits into this account increased from $38 million for FY 1985 to an estimated $174 million for FY 1988. This represents a $136 million or 357% increase over a 3-year period. Such a rate of increase would appear to exceed reasonable expectations of program expansion, particularly given the need to restrain Federal spending. Even after the transfer of $25 million, as proposed, there would still be an $8 million increase in the total funds available in FY 1988. The Department believes that the President's proposal represents an appropriate balance between program growth and fiscal responsibility, and that we have not broken faith with the intent of the legislation which created this fund.

The transfer of funds from the Sport Fish Restoration Account will result in an overall budgetary savings, since $25 million of the Resource Management Account will be offset by this one-time transfer. The $25 million is not designated for any specific uses, but will be spread across all Fish and Wildlife Service activities funded through appropriations for the Resource Management Account.

(2) Question: As I noted in my statement, the Fiscal Year 1988 budget proposes to appropriate only enough funds to provide 52% of the full payment in lieu of taxes to counties. In 1987, 58% was provided. In 1986, 67%. Have you got a strategy to reverse this trend?

Answer: The basic premise of the Refuge Revenue Sharing Act is that the revenues derived from economic uses of the National Wildlife Refuge System would offset the loss of taxes, and that supplementary appropriations would be requested if revenues were insufficient. Although the revenues have been too low to support full calculated payments, supplementary appropriations have not been requested in order to meet the deficit targets established by the Balanced Budget and Emergency Deficit Control Act of 1985. During the 1988 budget formulation process, some difficult choices had to be made. In this case, a decision was made to emphasize one of our major objectives in developing the FY 1988 budget, that of protecting the operating base of our refuge system. As a result, some programs, including the Refuge Revenue Sharing program, received less support than originally envisioned.

(3a) Question: What areas of the Service's responsibilities are receiving more emphasis than in the past?

Answer: The Service's FY 1988 budget emphasizes several areas of national importance including wetlands conservation, contaminants, and waterfowl restoration.

Passage of the Emergency Wetlands Resources Act will increase receipts into the Migratory Bird Conservation Account from an estimated $26.5 million in 1987 to approximately $37.6 million in 1988. These increased revenues will be used to acquire approximately 52,000 acres in five waterfowl habitat categories.

The effect of contaminants on fish and wildlife resources and their habitats is an area of increasing importance and concern as reflected by a 1987 Congressional increase of $4.5 million. This funding level is maintained in the FY 1988 request and an additional $1.2 million is requested as part of a Department-wide irrigation drainwater task force.

The budget request includes $3.0 million for the second year of concentrated Service efforts to address restoration of declining waterfowl populations. Operational activities included in this area are management and protection of habitat, increased waterfowl production on and off Service lands, and extension efforts for farm wildlife habitat. Research activities will continue to address the effects of nonhunting mortality factors and population modeling to evaluate and improve management techniques.

(3b) Question: What programs are receiving less emphasis than in the past?

Answer: Most Service programs will be maintained at a stable level in FY 1988; however, there will be a few areas with reduced levels of effort. In 1984, the Accelerated Refuge Maintenance Management program was initiated to address maintenance deficiencies on National Wildlife Refuges. This effort has received a total of $62 million in funding and has enabled the Service to correct the most serious problems and resolve health and safety deficiencies.

A number of smaller grant programs to States are proposed for elimination in 1988. These include the Section 6 Endangered Species grants to States (-$4.3 million), a grant to the State of Alaska for subsistence programs (-$974,000), and Anadromous Fish grants (-$2.0 million).

(4) Question: With regard to the additional funds to be used to identify irrigation drainage contamination on refuge and other Departmental lands, what refuges or other lands will be involved?

Answer: In FY 1986, the Department of the Interior initiated field screening studies at the following nine sites:

1. Imperial Valley, CA (Salton Sea Nat'l Wildlife)
2. Stillwater Wildlife Management Area, NV (Stillwater Nat'l Wildlife Refuge, Newlands Project)
3. Lower Colorado River Valley, AZ (Cibola, Havasu, and Imperial Nat'l Wildlife Refuges and Yuma and Gila Projects)
4. Tulare Lake, CA
5. Milk River Project, MT (Bowdoin Lake Nat'l Wildlife Refuge)
6. Sun River Project, MT (Benton Lake Nat'l Wildlife Refuge, Freezeout Lake Wildlife Management Area)
7. Laguna Atascosa Nat'l Wildlife Refuge, TX
8. Middle Green River Basin, UT (Ouray and Browns Park Nat'l Wildlife Refuges and Stewart Lake Wildlife Management Area)
9. Kendrick Project, WY

Studies at all but the first two sites are expected to be completed at the end of FY 1987. In FY 1988, the Imperial Valley and Stillwater studies will be completed and two year studies will be initiated at the following ten sites:

1. Sacramento Refuge Complex, CA (Butte Sink, Colusa, Delevan, Sacramento, and Sutter Nat'l Wildlife Refuges)
2. Klamath Basin Refuge Complex, CA (Lower Klamath and Tule Lake Nat'l Wildlife Refuges)
3. Gunnison River, CO (Uncompaghre Project and Sweitzer Lake)
4. Middle Arkansas River, CO and KS
5. American Falls Reservoir, ID
6. Middle Rio Grande, NM (Bosque Del Apache Nat'l Wildlife Refuge, Middle Rio Grande Project)
7. Malheur Nat'l Wildlife Refuge, OR
8. Angostura Unit, SD
9. Belle Fourche Project, SD
10. Riverton Unit, WY (Ocean Lake Wildlife Management Area)

(5) Question: Does the Service's budget proposal request $200,000 in fiscal year 1988 for cooperation with the U.S. Department of Agriculture's Extension Service?

Answer: The Service's budget request for cooperation with the U.S. Department of Agriculture's Extension Service for FY 1988 is $325,000 which is the same level as for FY 1987.

QUESTIONS SUBMITTED BY SENATOR GEORGE J. MITCHELL

Endangered Species Cooperative State Grant Program

(1) Question: With regard to the cooperative State grant program authorized under Section 6 of the Endangered Species Act, the Conference Report to the 1973 Act stated that:

> "the successful development of an endangered species program will ultimately depend upon a good working arrangement between the Federal agencies, which have broad policy perspective and authority, and the State agencies, which have the physical facilities and the personnel to see that State and Federal endangered species policies are properly executed. The grant program authorized by this legislation is essential to an adequate program....The conferees wish to make it clear that the grant authority must be exercised if the high purposes of this legislation are to be met."

Congress re-affirmed this commitment as recently as 1982 when it amended the Act to increase the Federal share under the grant program from two-thirds to three-quarters. Is the 1988 budget proposal to eliminate funding for the Cooperative State grant program consistent with Congressional intent?

Answer: The Service views the grant program as a means to assist the States to initiate endangered species conservation programs. We believe that this was the intent of Section 6 of the Act. To date, this has occurred in 49 out of the 56 States and Territories eligible for assistance. Since 1977, over $36 million in Section 6 funds have been provided to the States. The Administration believes that the States should assume more responsiblility for supporting endangered species activities within their jurisdictions. Our 1988 budget proposal reflects this position.

(2) Question: Even given the current appropriation of $4.3 million, what proportion of the existing Section 6 cooperative agreements with States receive no money?

Answer: There are presently 49 States and Territories with Cooperative Agreements. In FY 1986, grant funds were provided to 45 States and Territories. Of the four States that did not receive funding support, three (Alaska, Kansas, and Ohio) made no funding requests and one (Indiana) had its Cooperative Agreement approved after the disbursement of FY 1986 funds.

(3) Question: The budget justification states that "no essential recovery program would be terminated as a result of the loss of State grant funds." Would the recovery of any species be impaired or slowed by elimination of these funds?

Answer: In States where tax checkoff funding is available to support nongame programs, reduction or elimination of Federal grant funds should not significantly impair or slow species recovery although some specific projects or activities that the States view as lower priority may be suspended. Those States whose endangered species programs are supported primarily through Federal grant funds will have to evaluate their ongoing work and review their overall resource priorities. Some activities could be curtailed if the States choose not to redirect their funds toward endangered species responsibilities. However, the Service believes that the States will act responsibly in this regard and viable endangered species programs will be maintained.

(4) Question:. What is the distinction between an "essential recovery program" and other recovery programs?

Answer: All endangered and threatened species recovery activities are not of equal priority. When applying biological criteria, it becomes clear that some recovery tasks are more critical than others (to be considered highest priority, the activity must be essential to prevent extinction, while a lower priority task is one needed to maintain a species' current status). It is for this reason that the Service developed a recovery priority system. All recovery tasks are assessed for their biological importance to attempt to direct limited funds (including grant funds) to the highest priority needs. The Service will encourage the States to apply similar biological criteria in allocating State funds for endangered species work. In this context, we believe that any high priority (essential) activities that are identified by the States will be continued.

(5) Question: Your department's budget justification states that "the Service believes that opportunities exist (e.g., grants from private individuals and corporations) for the States to secure additional resources to continue their endangered programs." Why should the burden for recovery of species assisted by Section 6 funding be placed solely on the States, individuals, and corporations? Is not endangered species protection principally a Federal responsibility?

Answer: Although the Federal role is indeed significant, the Service believes that the magnitude of the endangered species conservation effort in the U.S. will require an expanded partnership between the public and private sector if this effort is to be successful. Federal resources should largely be directed toward precluding imminent extinctions, alleviating threats to listed species resulting from Federal actions, and developing the sophisticated research capabilities needed to address generic problems facing listed species. However, as more and more species are added to the list, there will be an increasing need for the States and the private sector to help support the expanding workload associated with undertaking those long-term actions needed to maintain or slowly improve a species' status (such as releasing bald eagles to reestablish viable wild populations).

(6) Question: The budget justification also states that "[a] major benefit of this State grant program is implementation of recovery activities for federally listed species without an increase in Federal

personnel ceilings." Do you disagree with that statement? Don't we get more recovery effort per Federal dollar by matching with State funds?

Answer: A major benefit of State involvement is the availability of more trained personnel participating in endangered species recovery activities. In some circumstances (e.g. working with isolated endemics), a State agency can do the work more efficiently than a Federal agency, and if Federal dollars are utilized, matching State funds would be the preferred approach. However, we are suggesting that the States consider using their own funds to do the same work without Federal involvement. The Service believes that the States should review their internal priorities and consider increasing their support of endangered species activities.

(7) Question: Are these activities funded under Section 6 unimportant to the protection and recovery of the four endangered species subject to cooperative agreements in Maine?

Answer: No recovery task is unimportant per se. However, some are viewed as more important than others. Of the approximately 400 funding proposals for approximately $9 million submitted to the Service by the States in FY 1986, the Service was able to fund only 159 out of our $4.3 million Section 6 appropriation. The Service determined that these 159 projects (including Maine's 4) were of relatively greater biological importance than the projects not selected. This same procedure has been followed every year; all projects are reviewed and those considered the highest priority are selected for funding. Consequently, the number of projects selected for each state can vary from year to year.

(8) Question: If the activities are important, is the Fish and Wildlife Service going to assume them? If not, who is?

Answer: There is no guarantee that projects funded under Section 6 in one year will be automatically funded in subsequent years. There are over 400 listed species in the U.S., all of which have recovery tasks which should be considered for funding support. Unfortunately, not every recovery task can be undertaken. That is why the Service developed a recovery priority system. As described previously, this allows for a biological assessment of all activities so that the highest priority tasks get funded. Each year recovery proposals for all listed species are reviewed and, if they are identified as higher priority (as the 4 projects were for Maine last year), they are approved to the extent funds are available. If grant funds are unavailable, the Service would expect that the States would reevaluate their own resource priorities to consider if funds can be made available to continue their important endangered species work.

Acquisition of Lands for Refuges and Endangered Species

(1) Question: Approximately how much acreage remains to be acquired to complete the identified boundaries of existing units of the National Wildlife Refuge System?

Answer: The 1983 estimate of about 15.9 million acres of private lands within the refuge system is our latest estimate. Since then, approximately 271,000 acres have been acquired. However, new refuge establishments and their unacquired acreage would balance out most of this progress.

(2) Question: Approximately how much acreage needs to be purchased to complete acquisition of areas already identified as necessary for protection of endangered species.

Answer: Approximately 107,000 acres are identified for endangered species acquisition within the Fish and Wildlife Service's Land Acquisition Priority System. This would cover nearly all incomplete and new endangered species refuges.

(3) Question: Will the integrity of any of these refuges be compromised five or ten years from now because we stopped purchasing the lands needed to complete them?

Answer: If land acquisition was stopped for the next five or ten years, it is possible that the integrity of some refuges would be compromised. Some refuges, however, would not be affected. Many of our refuges have had private inholdings within their boundaries for over twenty years with no damage to the resources of the unit. If a farm, ranch, or hunting club operation is compatible with the operation and goals of the refuge, land acquisition is not considered necessary nor advantageous.

(4) Question: More specifically, the Service's budget proposes to rescind the funds appropriated for the current fiscal year to acquire lands at Rachel Carson National Wildlife Refuge. These funds were to acquire upland areas in the refuge's watershed which must be protected to preserve the refuge's wetlands. These uplands are also the areas most threatened with development.

Is it your position, then, that the decision not to buy these lands for addition to Rachel Carson Refuge, or to postpone their purchase until some future Administration, will have no effect on the refuge's future integrity and effectiveness?

Answer: Rachel Carson National Wildlife Refuge's immediate vicinity has threats from residential and commerical development that is occurring on the uplands bordering the estuaries. Land acquisition utilizing revenues from the Migratory Bird Conservation Fund has been undertaken annually for this refuge to acquire the wetlands and the immediate uplands. It is the Administration's position that the purchase of uplands for this unit can be deferred in favor of the immediate protection of its wetlands.

No action, however, was taken by Congress on this rescission proposal.

Transfer from Sport Fish Restoration Account

(1) Question: If the Congress declines to pass legislation making this one-time transfer from the Sport Fish Restoration Account, how would the budget request for each of the subactivities within Resource Management be affected?

Answer: In the event that Congress declines to pass legislation that authorizes the one-time transfer of $25 million to Resource Management from the Sport Fish Restoration Account, all activities and subactivities within the Resource Management Appropriation will absorb approximately an 8% decrease from the requested budget level. This decrease would be absorbed through reductions in Service progams, including: maintenance projects at Service facilities that are not critical to Service operations; utilization of summer aids, temporary and part-time employees; law enforcement activities not related to endangered or threatened species; recreational activities; and habitat management activities not directly related to waterfowl or endangered species. Additionally, an effort would be made to consolidate, into complexes, Service facilities that are currently in place or are being planned.

(2) Question: Are you going to reduce all program elements and subactivities by 8% ($25M/$318M) across the board?

Answer: A reduction of approximately 8 percent across the board would be necessary to offset the reduction of $25 million from the budget request level for Resource Management.

(3) Question: Or, are some Resource Management activities, subactivities and program elements going to be reduced more and others less? Which ones?

Answer: All Resource Management activities, subactivities and program elements will be reduced by approximately 8 percent from the budget request level. Reductions will be absorbed, at the program element level, in such a way as to minimize the impact to Service operations.

(4) Question: Suppose that the revenues deposited in the Wallop-Breaux fund do not meet your projection of $174 million in fiscal year 1988; that, instead, the receipts are closer to $149 million. In that case would you still support a withdrawal of $25 million, even if it would result in a decrease from the amount apportioned among the states in fiscal year 1987?

Answer: The transfer would take place, as proposed, regardless of whether the actual deposits in the Sport Fish Restoration Account are greater or less than the $174 million estimated. However, at this time, there is no indication that the actual deposits will be significantly less that the amounts estimated.

Comprehensive Wildlife Conservation

(1) Question: About 90% of all migratory bird species are neither ordinarily hunted nor are threatened or endangered. Does the Service have a continuing program in place that is sufficiently sensitive and comprehensive to:

a) identify unstable and declining populations of these migratory bird species before they become threatened or endangered, and

b) provide information that would enable Federal and State agencies and, if necessary, their counterparts in other nations to respond in a coordinated manner to the needs of a declining species?

Answer: a) The best single source of data on population status is the Breeding Bird Survey (BBS), a nationwide network of about 1,000 survey routes run annually by volunteers. The Office of Migratory Bird Management has responsibility for coordinating the BBS and maintaining the data base. The BBS contains population data for about 500 of the 757 species of migratory nongame birds protected by international agreements; about 250 species are believed to be adequately monitored by the BBS. For species not well covered by the BBS (e.g., colonial waterbirds, shorebirds, raptors), the Service has contracted with private groups to collect information or maintain data bases.

b) The Service currently has no established program to routinely analyze and interpret the information in the various bird data bases, identify those species with unstable or declining populations, provide the information to Federal and State agencies, or respond in a coordinated manner to the needs of declining species. There is no formal mechanism, as there is for waterfowl and endangered species, for identifying declining nongame species, ascertaining the problems causing the decline, and implementing coordinated management responses by Federal, State and private agencies.

(2) Question: In 1983 the Service's Office of Migratory Bird Management drafted a "Nongame Migratory Bird Management Plan" for the United States." Has that plan been formally adopted? If not, does the Service have a plan in place that sets objectives and guides the Service's action with respect to these species?

Answer: The Nongame Migratory Bird Management Plan has not been adopted by the Service, nor does any alternative plan exist for these species. The Service recognizes the need for adopting and implementing such a plan, and is continuing to examine management options.

Cooperative Research Units

(1) Question: The University of Maine and the Maine Department of Inland Fisheries and Wildlife and Cooperators in other States signed contracts with the Service in which they agreed with the Service's proposal to reduce the number of staff at their respective Cooperative Research Units from 4 scientists to 3. The Maine Unit, however, currently has only 1 scientist; many of the other Units have only 2 of the 3 scientists promised two years ago. Has this commitment to provide 3 scientists at the Maine Unit and other Units been kept by the Service? Will it be kept in fiscal year 1987? In fiscal year 1988?

Answer: The Maine Unit now has two scientists. The Service will not be able to add the third scientist to the Maine Unit, and other Units in fiscal year 1987 or fiscal year 1988. The modest budget increase requested for this program for fiscal year 1988 is only enough to maintain the increases in operational expenses of the program as it is now staffed.

(2) Question: Why didn't the Service budget proposal request sufficient personnel ceilings and funding to fulfill the contracts they signed with the university and State Cooperators?

Answer: Other needs of the Service took priority over the need for additional ceilings and funds for the Cooperative Research Unit program.

Refuge Contamination

(1) Question: In April 1986 the Fish and Wildlife Service issued a report titled "Preliminary Survey of Contaminant Issues of Concern on National Wildlife Refuges", which identified 78 contaminant issues on 85 refuges as requiring some form of corrective action (Category A), in-depth monitoring and analysis of impacts (Category B), or reconnaissance monitoring (Category C). What specific funding has been requested in your fiscal year 1988 budget to enable you to take corrective action on the nine Category A National Wildlife Refuge contaminant issues identified in your April 1986 report, which are known to present problems?

Answer: The President's FY 1988 budget request includes $3.7 million to address Category A, B, and C contaminant issues on national wildlife refuges. In addition, an as-yet undetermined amount of other operational funding in the Fish and Wildlife Enhancement budget will be used to address contaminant issues on or adjacent to refuges. The FY 1987 Congressional add-on of $2.0 million has enabled the acceleration of refuge-specific contaminant activities in all seven Regions. Activities underway at various refuges can be described as problem detection, evaluation and correction. It is the Service's policy to seek cooperation from those responsible for the contaminants in funding corrective actions. Eight of the nine Category A issues are currently being addressed through such cooperative efforts. For all nine sites, cleanup is either underway or is being planned.

(2) Question: What specific funding has been requested to enable the Service to conduct the in-depth monitoring and analysis of impacts from 26 Category B refuge contaminant issues, which may present problems.

Answer: As noted above, all Category B contaminant issues will be addressed with funding in the President's FY 1988 budget request. Also, in further response to FY 1987 Congressional direction, an agreement with the Idaho National Engineering Laboratory has been negotiated to develop a national contaminant monitoring program for the National Wildlife Refuge System. This project will develop into the testing and implementation phase in FY 1988.

Land Exchanges

(1) Question: What is the status of the proposed land exchange involving Ugashik Narrows in the Alaska Peninsula National Wildlife Refuge?

Answer: In accordance with the provisions of the conference report on the Fiscal Year 1986 appropriations, the Fish and Wildlife Service is required to consult with the appropriate committees of jurisdiction prior to completing an exchange. On September 10, 1986, letters were sent to the appropriate committees and these consultations have not yet been completed.

(2) Question: Is the proposed exchange addressed in the Comprehensive Conservation Plan for the Alaska Peninsula Refuge?

Answer: Specific exchange proposals are not addressed in any of the Comprehensive Conservation Plans. Therefore, the Ugashik exchange is not addressed in the Conservation Plan for the Alaska Peninsula Refuge.

(3) Question: Is the proposed exchange consistent with the preferred alternative identified in the refuge plan?

Answer: The exchange is not specifically addressed but it is believed that the exchange will have no effect on the refuge; therefore, it would be consistent with the preferred alternative.

(4) Question: Does the Interior Department intend to postpone the exchange, as recommended by the Alaska Department of Fish and Game, until sufficient information is available to determine whether the grayling fishery can be sustained at the proposed level of use?

Answer: The Fish and Wildlife Service does not believe that the exchange will have a major effect on the grayling fishery. In any event, the State is responsible for this fishery and can regulate as necessary. Therefore, we do not plan to delay the exchange once the necessary approvals have been obtained.

(5) Question: Do you think, in general, that the local exchange process should be used to create inholdings within refuges?

Answer: As a general rule, when lands within a refuge boundary are used for exchange purposes they are on the edge of a refuge boundary and can easily be removed from the refuge. It is not usually desirable to exchange lands from the center of a refuge, as this may create administrative problems.

(6) Question: Should land exchanges be pursued in response to requests for approval of development activities within refuges or for any reason other than furtherance of the purposes for which the refuge was established?

Answer: Lands that the Service receives in an exchange for refuge lands must be more valuable for wildlife purposes than the lands that are divested. In the case of Ugashik Narrows, the lands being divested are already developed and the lands being acquired have far superior wildlife values.

(7) Question: Are land exchanges an adequate substitute for land acquisition?

Answer: Land exchanges are a form of land acquisition and, when used properly, can be of great benefit to the government, especially in those instances where appropriated funds are unavailable for acquisition. However, land exchanges should not be thought of as an exclusive substitute for the purchase of lands with appropriated funds.

QUESTIONS SUBMITTED BY SENATOR MAX BAUCUS

Rescissions

(1) Question: The FWS proposes to rescind $250,000 from status surveys for candidate species for listing under the Endangered Species Act, and $250,000 for prelisting activities, also under the ESA. (see p.304-305 of FWS budget.) Your submission also claims that "more than 1,100 [species] now await formal listing" (p.305), although in the Federal Register of Sept. 27, 1985, FWS listed more than 4,000 candidate species of plants alone. Given the enormous backlog of candidate species, won't this cut slow the pace of listing even further? Is it not reasonable to expect that many of these species will become extinct before receiving the protection resulting from being called endangered or threatened? And what kind of encouragement does the FWS expect to give the States to protect candidate species in the absence of speedy listing when it plans to rescind $4.3 million in State grants?

Answer: The species referred to are those assigned to Category 1 in one of the Service's notices of review. These are species for which we now have substantial information indicating that proposals to list are warranted. The 4,000 plant species named in the notice of review includes categories 2 (proposal to list possibly warranted — 1623 species) and 3 (former candidates found not to qualify for listing — 1414 species).

Listings are planned in accordance with the Service's established priority system, which is intended to direct resources preferentially to species in greatest danger of extinction. Given the use of the listing priority system and the large number of candidate species in Category 1 (for which little or no new information is required to support listing proposals), the reduction in funds for status surveys was not expected to reduce the pace of listing or to overlook any species in imminent danger of extinction. No action was taken by Congress, however, on this rescission proposal.

(2) Question: A strength of the ESA is that it has encouraged planners to consult the FWS about possible conflicts with the ESA at the very earliest stages of project planning when necessary changes may still be easy and inexpensive. The proposed rescission of $300,000 suggests that other agencies will begin to underwrite the data base that is used in the consultation process as those agencies prepare their projects. Which other agencies have added funds to their budgets to pay for the data base? How does FWS propose to obtain this money from the agencies on a fee per consultation basis? As a charge for connect time to the computer? As a percent of project costs? Other? Do you expect that agencies will be as likely to consult FWS early in the planning process if a fee is charged for each consultation?

Answer: To our knowledge, no other Federal agencies have added funds to their budgets specifically to pay for the data base (Endangered Species Information System). When each agency is given direct access to the data base, they will be issued the appropriate security information (passwords, etc.) and will need to establish an account to which their use will be charged. Until the agencies are permitted direct access, the Service is investigating the potential for charging the agencies based on time, and other associated costs per retrieval (job). We do not anticipate any reluctance on the agencies' part to obtain the information for a fee since the quality, volume, and kinds of data that can be supplied by the data base can result in significant cost savings in time spent searching for other data sources and information. Also, the manner in which data can be arrayed and sorted will enhance the agencies' ability to complete their mission in a more timely, cost effective manner.

It should be emphasized that the Service is not planning to charge other agencies for consultation under Section 7 of the Act. The Service is simply proposing to develop and maintain (through user fees) a database of the most accurate information available on listed species. This database is intended to assist other agencies in reviewing endangered species implications in early project planning, not to discourage such activity.

No action was taken by Congress, however, on this rescission proposal.

(3) Question: The U.S. Forest Service owns only one tropical rain forest, the Caribbean National Forest in Puerto Rico, the last home of the endangered Puerto Rican parrot. The Forest Service is now proposing to expand logging operations in the National Forest. Because the plan would allow cutting in part of the parrot's habitat, this action could threaten the survival of the parrot. The Forest plan states that this area will be managed to provide "long-term yields of both wood-fiber and parrot habitat"; it does not cite research that the two goals can be achieved simultaneously. Yet the FWS proposes to rescind $100,000 from the parrot recovery program. If there are new losses of habitat planned, won't the parrot need more, not less, help? What model does this action provide to those tropical countries that we are trying to encourage to preserve rain forests and their unique species?

Answer: On November 15, 1985, the FWS issued a biological opinion on the Forest Service's proposed Land and Resource Management Plan (LRMP) for the Caribbean National Forest. This opinion indicated that actions outlined in the plan (including proposed timber harvests) were not likely to jeopardize the continued existence of the Puerto Rican parrot. This opinion was based on a commitment from the Forest Service that no timber cutting or other activities would occur in parrot habitat or in such a way as to affect this species before allowing FWS review of those actions and/or additional consultation under Section 7 of the Act. Therefore, it is not anticipated that the Forest Service plan will threaten the survival of the parrot. Following approval of the LRMP by the Forest Service in February, 1986, appeals were made by various entities, including some in Puerto Rico, to have the plan amended on several issues. In November, 1986, the Forest Service agreed to exclude commercial timber harvests from the plan and by July 12, 1987, intends to formally amend the LRMP in this regard. Not only will commercial timber harvest be excluded, but clear-cutting will be replaced by selective cutting allowing trees to be cut for research and demonstration purposes only. Wildlife activities proposed in the LRMP may benefit the species by providing information on habitat requirements, population status, and by increasing available habitat through structural habitat improvements. We feel that the Forest Service's plan and the interaction with the FWS over endangered species concerns provides a viable and useful model for tropical countries that desire to preserve these habitats and species while managing them for sustained resource yields.

No action was taken by Congress, however, on the rescission proposal.

(4) Question: In Montana, the State and Federal government have had great success in reintroducing bald eagles; numbers rose from 23 pairs in 1980 to 55 in 1986. The State Department of Fish and Wildlife and Parks has even suggested that the species may need to be upgraded from "endangered" to merely "threatened." Peregrine falcons, on the other hand, are still in trouble, but an active cooperative recovery program has had some success. In the area around Yellowstone, for example, there were two falcon nests near West Yellowstone in 1986. According to the MDFWP, the falcons should be at recovery levels in about 10 years if the program is allowed to continue. What effect do you think a cutback of $300,000 in the falcon recovery program will have on this schedule? How soon will Montana's falcons be able to recover?

Answer: A cutback of $300,000 in the falcon recovery program is not expected to have a significant impact on the recovery of this species. The Peregrine Fund has produced approximately 3,000 peregrines for release in 27 States since 1970. The Peregrine Fund has also become highly proficient in their ongoing campaign to raise funds which will be in excess of $1 million in 1988. We believe that continued support for the Peregrine Fund's efforts should be based on private donations and funds contributed by those States receiving young falcons for release. Since the Peregrine Fund will continue its operations (producing and releasing peregrines) with or without the $300,000, we do not believe that the cut-back in Federal support will have a significant adverse effect on the recovery program. At worst, the rate of peregrine recovery may be slightly delayed in Montana and in other release areas if fewer peregrines are produced.

(5) Question: The department proposes to rescind $4.3 million in State grants for the Endangered Species program. If you were still director of the MDFWP and faced such a cut, where would you cut back in the State's activities? If you would not cut, where would you obtain the additional funds?

Answer: The MDFWP would undoubtedly follow the same procedure that any other agency must follow when funding is constrained. All activities (including endangered species tasks) for which the MDFWP is responsible would be assessed the highest priority among actions that would be funded. The unavailability of grant funds could result in a reordering of internal funding priorities, but we would make every effort to maximize the use of whatever funding support was available.

No action, however, was taken by Congress on this rescission proposal.

(6a) Question: In several places in Montana, we have had trouble with wildlife violations, such as illegal shooting of grizzlies, and poaching of big game around the Gallatin River. What kind of information does FWS need to obtain a conviction for poaching or killing of an endangered species?

Answer: The information required to obtain a conviction for poaching or killing an endangered species varies according to the circumstances of the individual case. However, investigations are often enhanced and convictions more easily obtained when sound forensic support is available. Specifically, information derived from the crime scene examination, evidence processing, and wildlife parts/product identification can be crucial in obtaining a conviction.

(6b) Question: Don't you often need ballistics tests, analysis of hair, features, blood, and all of the other services that a modern crime lab supplies?

Answer: Yes. Since felony convictions are provided for in the Lacey Act Amendments of 1981, United States attorneys require crime scene work-ups and case preparation for wildlife violations that are equally thorough to those required for human mortalities. For example, all grizzly bear carcasses are necropsied to determine such facts as the cause of death, ballistics of the bullet, and a determination if the bear was killed in self-defense. If parts of the carcass have been removed, further laboratory analysis can be used to subsequently match the cut pieces of bone. Analysis and courtroom testimony concerning the identification of meats, sausages, hair, feathers, and blood would also assist in the investigations and prosecutions of wildlife violators.

(6c) Question: Does the absence of this information hinder a conviction?

Answer: The absence of the type of information provided by forensic support can hinder an investigation as well as a conviction. Many investigations cannot be pursued without the availability of positive identification of wildlife parts or products and follow-up testimony by experts. Currently, the Service is only able to provide limited technical (i.e., photo, video, electronic) support.

(6d) Question: How soon will the new FWS forensics lab be completed? What was the original scheduled date for completion?

Answer: Although, the funding appropriated by Congress to cover construction and start-up costs of the facility were proposed for rescission, no action was taken bu Congress on this proposal. The lab is expected to be completed during the summer of 1988. While the Service originally anticipated a 1987 opening date, a more realistic date was determined based on such factors as site evalution and selection, clarification and resolution of funding issues, and the actual mechanics of awarding the construction contract.

(6e) Question: Your document says that you wish to rescind $250,000 for equipment for the lab. If the problem is merely due to a construction delay, why are you planning to rescind, rather than defer this money, since it will eventually be needed?

Answer: This rescission proposal was consistent with the Administration's policy to discontinue funding of most new or expanded projects in order to reduce Federal spending. No action, however, was taken by the Congress on this rescission proposal.

(7a) Question: Your document on page 323 gives Red Rock Lakes National Wildlife Refuge to Michigan. I would like first to take it back to Montana and then ask where the tract is that you do not plan to purchase because of your proposed $1 million rescission?

Answer: The tracts that the rescission proposal concerned are on the southwest and west side of the Red Rock Lakes National Wildlife Refuge. No action, however, was taken by the Congress on the rescission proposal.

(7b) Question: How does the owner feel about that?

Answer: There are three owners involved who are willing sellers. However, they are not known to be actually advertising their land for sale.

(7c) Question: Who are the owners?

Answer: The owners are Eugene C. Walsh (640 acres), Vovler C. Sair (600 acres), and John C. Kinard (160 acres).

(7d) Question: What will happen to the land if you do not purchase it?

Answer: The owners will continue their present use or they will sell the property to someone else.

(7e) Question: What birds nest in the area?

Answer: The Walsh tract is used by mountain species such as blue grouse, the Sair tract has some waterfowl use on sub-irrigated areas and along creeks, and the Kinard tract has little waterfowl use along creeks. Most of the area, however, is high ground which supports sage grouse and other upland species.

(7f) Question: What threats of development are there?

Answer: The most probable development potential of this land is for recreational home sites.

FY 1988 Budget

(1a) Question: You ask for no new funds for land acquisition for Refuges under the Land and Water Conservation Fund. On page 191, you assert that the loss of these funds ($42.4 million in FY 1987) will be made up by increases in the revenues accruing to the Migratory Bird Conservation Account from the higher prices of Duck Stamps. However, you are simultaneously proposing a Migratory Bird Conservation Account budget of $37.6 million, an increase of only $11.1 million over FY 1987. This still produces a net loss of $31.3 million in land acquisition funds. There have been recent cuts in the quotas for duck hunting, blamed in part on poor weather and loss of habitat. Is the present amount of habitat adequate to maintain waterfowl habitat?

Answer: If the existing waterfowl habitat, regardless of ownership, could be perpetuated, and in some instances improved, adequate habitat would exist for waterfowl with the exception of the black duck habitat along the east coast.

(1b) Question: Won't the loss of these areas which will not be bought mean even lower quotas along the flyways?

Answer: Lower quotas should not result since waterfowl hunting regulations (or "quotas") are changed only when substantial population changes occur. Although habitat influences waterfowl population levels in an overall sense, other factors also affect both population levels and the regulatory process. Therefore, the link between waterfowl habitat and hunting regulations is general; habitat deterioration would have to be very drastic to affect hunting regulations significantly.

(1c) Question: What critical areas of Refuges or Waterfowl Production areas still need to be bought in Montana?

Answer: Remaining refuge areas include ninety acres at Lee Metcalf National Wildlife Refuge. Remaining Waterfowl Production Areas include 640 acres at Kicking Horse Reservoir (Lake County), 15 acres at Bowdoin and 5,000 acres in Sheldon and Daniel counties.

(1d) Question: Moreover, not all acquisition needs are eligible for use of Duck Stamp funds. In Montana, what needs do you have for critical tracts important to other species that you will not be able to acquire with Duck Stamps?

Answer: There are sizeable areas within Montana to be acquired for species other than waterfowl. Currently, 20,000 acres on the North Fork of the Flathead River and 15,000 acres in Lincoln and Sanders County need to be acquired for the threatened grizzly bear.

(2) Question: What are the research plans of the FWS for gray wolves? What are the plans of the FWS for re-introduction of wolves into the Greater Yellowstone Ecosystem, and how much money is allocated to this recovery effort? What are the remaining roadblocks? What techniques would be used to confine the wolves in the Parks and National Forest and prevent their making pests of themselves with livestock? What effect, if any, do you expect to see on the population of bears in the Greater Yellowstone Ecosystem?

Answer: The Service intends to shift research emphasis from the gray wolf in Minnesota to the red wolf in North Carolina and the Northern Rocky Mountain wolf. The final draft of the Northern Rocky Mountain wolf recovery plan calls for reestablishing a population of wolves (minimum 10 breeding pairs) in the Greater Yellowstone Ecosystem. If this remains a part of the approved recovery plan, a great deal of planning and public involvement would be necessary before any releases would take place. This would include compliance with NEPA and detailed coordination with affected State and Federal agencies, resource user groups, conservation organizations and individuals. There remains considerable opposition to wolf reintroduction by some resource users. Wolves that range outside the designated recovery areas and serious conflicts with livestock management and other users will be controlled, lethally, if necessary. No money will be allocated for this reintroduction until all the issues affecting interested parties are clarified. The effect of wolf reintroduction on the grizzly bear in the Greater Yellowstone ecosystem is not expected to be significant due to the low numbers of wolves relative to the large acreage of habitat and an expanding prey base.

(3) Question: Do you anticipate collecting any entrance fees at any of the National Wildlife Refuges in Montana? If so, which ones? What are the current visitation figures for these areas? What are the chief uses?

Answer: National Bison Range is the only refuge in Montana which is slated for initiation of entrance fee collection during FY 1987. The most current visitation figures are from FY 1985 when total annual visits were 98,000. Chief uses were wildlife/wildlands observation, picnicking, interpretation and environmental education.

(4a) Question: Once, if my staff had wanted budget information about the endangered species program, for wolves generally for example, they would have called the Endangered Species Office and obtained national data in fairly short order. Now the Washington office is unable to provide national data, and figures must be obtained from regional offices. Data are no longer even stored in Washington. This makes comparisons extremely difficult and time-consuming, if not impossible. Is this decentralization of budget data being carried out for other kinds of programs as well?

Answer: Under the Service's reorganization, the Regional Offices have broad authority to determine funding priorities for activities within their areas, except for those specific activities where funding has been directed by the Congress. The Washington Offices are primarily responsible for providing staff support to the Director. An element of this support function is liaison with the Regional Offices to obtain budgetary and resource data to ensure that national objectives and goals of the Service will be accomplished.

(4b) Question: What is the purpose of decentralization?

Answer: I believe this reorganization will enhance program delivery and accountability at the field level. This effort to decentralize some Service operations will provide a closer link between the allocation of funds and staff and the accomplishment of regional goals and objectives. Further, based on our need to increase resources at the field level without increasing the Federal budget, this reorganization will ultimately allow some staffing increases on refuges and hatcheries within our current budget targets.

(4c) Question: What purpose is hindered if data are stored on computer in both regional and Washington offices?

Answer: At this time, the Service does not have the computer capability to maintain dual systems.

(5) Question: How much money does the FWS plan to spend on recovery of grizzly bears in the Glacier National Park and the Greater Yellowstone Ecosystem? Does the FWS agree with the situation management concept of the Forest Service and Park Service in the light of new data on the distribution of grizzlies, showing that many high density bear use areas are not ranked as situation I? Currently, the Forest plans for the Gallatin and the Targhee call for substantial development between Yellowstone National Park and the west of the Park. Together, the combination of oil leases, timber sales, and geothermal sales would all but cut off prime grizzly habitat. Will the FWS study this area, and make recommendations that would prevent fragmentation of the habitat?

Answer: Overall regional allocations of grizzly bear funding have not been finalized. However, the figure for Yellowstone appears to be firm at $30,000. Expenditures in the Glacier National Park area should be approximately $38,000 and in the Cabinet-Yaak Mountains, an additional $30,000. The Service agrees with the management situation concept, and we are not aware of any high density bear use areas that are not ranked as situation I. Any management program on the Gallatin and Targhee National Forests that would result in significant fragmentation of grizzly bear habitat would be subject to section 7 of the Act and, if it threatened the continued survival of the grizzly, could lead to the issuance of a jeopardy biological opinion.

QUESTIONS SUBMITTED BY SENATOR FRANK R. LAUTENBERG

The Fish and Wildlife Service, along with the Department of the Interior, recently published a Federal Register notice that it would impose a moratorium on striped bass fishing in New Jersey on April 1, 1987.

(1) Question: What was the basis for that notice?

Answer: The notice, which was jointly issued with the Department of Commerce, was published as a part of the process of fulfilling Federal responsibilities under the Atlantic Striped Bass Conservation Act (the Act) (16 U.S.C. 1851 Note, as amended by P.L. 99-432).

Section 4 of the Act specifies that, after notification by the Atlantic States Marine Fisheries Commission (the Commission) that a coastal State has not adopted and/or is not enforcing regulatory measures to fully implement the Interstate Fisheries Management Plan for the Striped Bass (the Plan), the Secretaries shall determine jointly whether that State is in compliance with the Plan. If the State is not found to be in compliance, the Act requires the Secretaries to impose a moratorium on striped bass fishing in the coastal waters of that State. The Secretaries of the Interior and Commerce were advised by a December 31, 1986, letter from the Commission that the Commission had found New Jersey not to be in compliance with its Plan.

The notice published February 12, 1987, (at 52 FR 4515) advised that, after reviewing relevant information and meeting with representatives of the State of New Jersey and the Commission and considering their comments, the Departments of the Interior and Commerce agreed with the Commission that the State of New Jersey was not in compliance with the Plan as required by the Act. As pointed out in the notice, the State of New Jersey has admitted that it is not presently in compliance with the Act. The notice further advised that, unless measures determined to be in compliance with the Plan are adopted, the moratorium required by the Act will be imposed effective April 1, 1987.

(2) Question: What would New Jersey have to do in order to avoid a moratorium?

Answer: Amendment #3 of the Plan has as its specific objective to prevent fishing mortality on at least 95% of the 1982 and subsequent year classes of Chesapeake Bay striped bass females until 95% of these fish have had an opportunity to reproduce at least once. Mechanisms that can be used alone or in combination to achieve this objective are included in Amendment #3. These are: total closure of the striped bass fishery; establishment of minimum size limits below which 95% of the females will have spawned; a combination of seasonal closure and minimum size limits; and elimination of allowable by-catch below minimum lengths.

A schedule of minimum size limits was included with Amendment #3 to facilitate its implementation. The Commission advised New Jersey in October 1986 that, to be in compliance with the Plan, it should enact minimum size restrictions of 31 inches by February 1987 and 33 inches by August 1987. Therefore, enactment of such restrictions or total closure would clearly meet the objective of Amendment #3.

(3) Question: Has New Jersey taken steps to avoid imposition of a moratorium?

Answewr: Bills have been introduced into the State Legislature to amend the current restrictions on striped bass fishing in New Jersey coastal waters. The proposed measures do not implement the Amendment #3 schedule of size restrictions. While we have not asked the Commission whether it believes the proposals would comply with the Plan, the Departments of the Interior and Commerce do not believe they would comply and have so advised New Jersey.

(4) Question: What would the economic impact of a moratorium be on New Jersey's fishermen, and on the State's economy?

Answer: We have not developed this information; such information should be obtained from the State of New Jersey.

(5) Question: Have moratoria been imposed on other states?

Answer: No. However, the District of Columbia has also been advised that a moratorium will be imposed April 1 on striped bass fishing in its waters if measures determined to be in compliance with the Plan are not adopted.

The Act requires notification of noncompliance from the Commission prior to Federal review and action. The first compliance review under the Act was conducted by the Commission in December 1985 and the Commission found all subject jurisdictions in compliance at that time. New Jersey and the District were found by the Commission during its December 1986 review not to have adopted or enforced necessary regulations to implement the Plan. Thus, this is the first time that a finding has been made that could lead to a moratorium under the Act.

QUESTIONS SUBMITTED BY SENATOR BOB GRAHAM

(1) Question: Mr. Horn, you stated in your testimony that the proposed Collier exchange could serve as a substitute for S. 90, legislation introduced by Senator Chiles and myself for the acquisition of 136,000 acres for addition to the Big Cypress Preserve. The proposed exchange would only include 81,000 acres of the 136,000 acres needed to adequately protect the Big Cypress Preserve and the Florida Panther habitat. How then do you propose to acquire the remaining 55,000 acres to complete the necessary 136,000 acre acquisition?

Answer: Under the land exchange proposal, areas in the proposed Big Cypress Addition which are not owned by the Collier interests would be acquired by the State of Florida, using the funds already appropriated towards the State's share of the project, and donated to the United States.

(2) Question: You are proposing to eliminate funding for Section 6 state grants for recovery of threatened and endangered species. What plans do you have, if any, to provide the necessary monitoring and survey in the recovery of the manatee?

Answer: The Service is currently engaged in an active manatee recovery program and expects to continue this effort in the future. In FY 1986, the Service provided $38,000 in grant money to Florida for manatee work. At the same time, Service activities funded under Section 15 totaled $315,000. This work included coordinated manatee recovery efforts, determining movement patterns and mortality, monitoring aquatic vegetation, monitoring manatee status and distribution, and monitoring reproductive success. This recovery program continue independently of Federal grant funds provided to Florida.

(3) Question: Along those same lines, what plans do you have toward achieving the ultimate goal of removal of the Florida panther from the endangered species list, when you are proposing the elimination of $240,000 in grants to the states for recovery of this endangered species?

Answer: In May 1986, a Florida Panther Interagency Committee involving the National Park Service, the Florida Department of Natural Resources, the Florida Game and Fresh Water Fish Commission, and the Fish and Wildlife Service was organized. The goal of this group is to promote a coordinated effort to restore the Florida panther to a secure status in the wild. Two of the Committee's objectives are to minimize duplication of efforts and to coordinate decisions about which recovery measures should be implemented by each agency. These objectives will aid in the recovery of the panther at a reduced cost. The Committee is also developing a coordinated public relations campaign to encourage private contributions for panther research. For instance, the Gilmon Paper Company has provided a captive breeding facility at their expense. There also exists a panther trust fund established by the governor of Florida as a focal point for public contributions to be used in conservation efforts. The National Park Service has begun survey work in the Everglades National Park. The Florida Game and Fresh Water Fish Commission is cooperating in these surveys, along with research they are conducting elsewhere in panther habitat. These efforts are being supported by nongame funds from a check-off on auto registration fees. Finally, the Service has recently appointed a full time Florida panther coordinator to better direct and coordinate conservation efforts.

QUESTIONS SUBMITTED BY SENATOR JOHN H. CHAFEE

(1) Question: Would you tell us the status of your efforts to complete the acquisition of lands for the Trustom Pond Refuge?

Answer: Currently, the refuge consists of 642 acres. Of this 642 acres, about 527 were acquired through donation and 115 acres were purchased with appropriated funds. About 370 acres, in 14 ownerships, remain to be acquired within the approved boundary of the refuge. The refuge master planning is in progress and a draft environmental assessment is due in the spring of 1987.

(2) Question: What is the status of the striped bass study?

Answer: The report on the Emergency Striped Bass Research Study for FY 1985 is completed (attached). The Report to Congress for FY 1986 is in the last stages of preparation. Studies covered in that report include:

1. Immune response in striped bass: investigation of immunocompetence in young fry and yearling stages.
2. Immunological tests to discriminate stocks of striped bass.
3. Field and laboratory assessment of factors affecting responses of striped bass to acidification.
4. Field assessment of striped bass larval survival as related to contaminants and changes in water quality parameters.
5. Program coordination.

Studies planned for FY 1987 are currently suspended because funds are under rescission. Planned studies include:

1. Habitat monitoring and assessment of environmental factors affecting responses of striped bass to contaminants.
2. Mobile on-site and in-site striped bass contaminants studies in the Choptank River and upper Chesapeake Bay; annual contaminant and water quality evaluations in east coast striped bass spawning habitats.
3. Immunological tests to discriminate stocks of striped bass.
4. Program coordination.

(2a) Question: What funds will be used to implement the striped bass act?

Answer: Implementation of the striped bass act is funded through redirection the of Service's resource funds.

(3) Question: What is the effect of the proposed rescissions at the Minnesota Valley and Eastern Shore refuge?

Answer: The rescission of $1,418,000 appropriated for acquisition at the Minnesota Valley National Wildlife Refuge would have delayed the acquisition of about 500 acres in six ownerships scheduled for Fiscal Year 1987. The rescission of $375,000 appropriated for acquisition at the Eastern Shore National Wildlife Refuge would have delayed the acquisition of 70 acres scheduled for Fiscal Year 1987. No action was taken by Congress, however, on these rescission proposals.

(4) Question: Is it your understanding that you cannot proceed to open the Arctic National Wildlife Refuge to oil and gas exploration or development unless and until Congress passes new legislation allowing you to do so?

Answer: Section 1003 of the Alaska National Wildlife Interest Lands Conservation Act prohibits the opening of the Arctic National Wildlife Refuge to "leasing or other development leading to production of oil and gas" until authorized by an Act of Congress.

QUESTIONS SUBMITTED BY LARRY PRESSLER

(1) Question: Several years ago the State of South Dakota and the South Dakota congressional delegation agreed to a consolidation of the Cooperative Wildlife and Fisheries Unit at South Dakota State University in Brookings. Part of that agreement stipulated full staffing of the Cooperative Wildlife and Fisheries Unit. Since that agreement, vacant staff positions have not been filled. Would your budget request for FY88 allow these vacant positions to be filled?

Answer: No. The increase being requested for the Cooperative Research Unit program for FY88 is only enough to keep up with cost increases for the operation of the program as it is now staffed.

(2) Question: The South Dakota Department of Game, Fish and Parks recently contacted me regarding your proposal to transfer $25 million from the Sport Fish Restoration Act (Wallop-Breaux) fund to the Fish and Wildlife Service's Resource Management account. Is this proposed transfer consistent with the intent of the Act? How would this transfer affect the amount of funding the States will receive?

Answer: The proposed one-time transfer of $25 million from the Sport Fish Restoration Account of the Aquatic Resources Trust Fund to the Resource Management Appropriation will be carried out under the authority of legislation proposed as part of this budget. The following table shows the impact of a $25 million reduction on each State's apportionment of Federal Aid in Sport Fish Restoration Funds.

IMPACT OF $25 MILLION TRANSFER ON APPORTIONMENTS TO STATES FOR FEDERAL AID IN SPORT FISH RESTORATION

STATE	REDUCTION
Alabama	422,339
Alaska	1,250,000
Arizona	544,342
Arkansas	420,468
California	1,250,000
Colorado	617,972
Connecticut	250,000
Delaware	250,000
Florida	557,960
Georgia	504,010
Hawaii	250,000
Idaho	435,097
Illinois	566,728
Indiana	398,373
Iowa	366,544
Kansas	365,345
Kentucky	398,747
Lousiana	410,903
Maine	250,000
Maryland	250,000
Massachusetts	250,000
Michigan	915,985
Minnesota	919,361
Mississippi	350,864
Missouri	637,595
Montana	561,757
Nebraska	319,490
Nevada	391,927
New Hampshire	250,000
New Jersey	250,000
New Mexico	451,418
New York	617,855
North Carolina	361,643
North Dakota	273,558
Ohio	667,648
Oklahoma	483,244
Oregon	585,220
Pennsylvania	601,330
Rhode Island	250,000
South Carolina	285,382
South Dakota	296,443
Tennessee	464,765
Texas	1,250,000
Utah	416,415
Vermont	250,000
Virginia	377,072
Washington	573,453
West Virginia	250,000
Wisconsin	885,755
Wyoming	386,327
Puerto Rico	250,000
Guam	83,333
Virgin Islands	83,333
American Samoa	83,333
N. Mariana Islands	83,333
District of Columbia	83,333
Total	25,000,000

(3) Question: Several counties in South Dakota where the Fish and Wildlife Service owns numerous wetlands experienced a significant reduction in tax revenue due to a smaller payment from the Fish and Wildlife Service last year. These local governments need to establish their budgets well in advance, and a reduction in these payments creates serious problems. Your budget request calls for a reduction in payments to counties containing Fish and Wildlife Service lands. What is the justification for this cut and how do you propose these local governments make up the revenue shortfall?

Answer: We have not requested a reduction in payments to counties. In fact, our request for appropriations is the same as it was in Fiscal Year 1987, $5,645,000. The so-called increase in the shortfall arises from the fact that the calculated entitlement to the counties continues to rise as more land is acquired or older areas are reappraised. These factors increase the amount due to the counties under a formula established by the Refuge Revenue Sharing Act. The appropriations have remained stable over the last few years but entitlements continue to rise, thereby reducing the percentage of full entitlement that we are able to make each successive year.

(4a) Question: South Dakota has seven national wildlife refuges. Your budget request calls for a 43 percent reduction in refuge maintenance program funding. How will these cuts affect the operation of refuges?

Answer: The reduction in maintenance funding is based on cuts in the Accelerated Refuge Maintenance Management (ARMM) program, a special initiative that was commenced in FY 1984 that has enhanced maintenance capabilities on refuges over the last four years. Funds already provided have accomplished many high priority maintenance projects and the proposed reduction in ARMM funding will defer only lower priority maintenance activities. The FY 1988 field station budgets for South Dakota refuges will be reduced about 20 percent below FY 1987 levels resulting in actions such as reduced purchase of supplies and materials for maintenance purposes and deferment of equipment replacement.

(4b) Question: Will this result in staffing reductions or the closing of any facilities?

Answer: The proposed FY 1988 ARMM reduction is not expected to result in staffing reductions or closing of facilities at South Dakota refuges. Adequate funds will remain in field station budgets to continue ongoing activities.

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

(1) Question: The Department has sent to Congress a rescission request of FY 87 funds and a stringent budget request for FY 88 for refuge, hatchery and research facility construction projects.

A $400,000 rescission is proposed for the Cape Charles National Wildlife Refuge located on the Eastern Shore of Virginia.

Cape Charles is on the list of refuges that have known toxic pollution problems because of the asbestos insulation present in the buildings at the refuge. A portion of the $400,000 is to be used by the Fish and Wildlife Service for asbestos removal so that these buildings will be safe for Service personnel.

How do you propose to handle this problem in a timely manner with the rescission request?

Answer: The four buildings intended for use by refuge personnel were cleaned up in FY 1985 and FY 1986 and are now in use. The Army Corps of Engineers is currently seeking funding under the Department of Defense Environmental Restoration Fund to remove the asbestos insulation in eight additional buildings, and then to demolish them. The rescission request, however, was not acted upon by the Congress.

FISCAL YEAR 1988 BUDGET REVIEW

WEDNESDAY, FEBRUARY 18, 1987

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The committee met, pursuant to notice, at 9:35 a.m., in room SD-406, Dirksen Senate Office Building, Hon. Quentin N. Burdick (chairman of the committee) presiding.

Present: Senators Burdick, Moynihan, Breaux, Reid, Stafford, Chafee, Simpson, Symms, and Pressler.

TENNESSEE VALLEY AUTHORITY

OPENING STATEMENT OF HON. QUENTIN N. BURDICK, U.S. SENATOR FROM THE STATE OF NORTH DAKOTA

Senator **BURDICK**. Good morning and welcome.

The Committee on Environment and Public Works is meeting today to receive testimony from the Tennessee Valley Authority and the Nuclear Regulatory Commission on their budget requests. This hearing should help the committee make its recommendations to the Budget Committee on spending levels for these projects.

First, I'd like to congratulate and welcome our new chairman of the Subcommittee on Nuclear Regulation, Senator Breaux. I look forward to working closely on nuclear and TVA issues with you and Senators Stafford and Simpson and other members of the committee. I am pleased that, as in the past, we have such a capable and proven leader to head this subcommittee.

I would also like to welcome the witnesses before the committee today, Chairman Dean and Director Waters from the TVA and Chairman Zech and his fellow commissioners from the NRC. I hope that we, too, will be working closely together in this Congress.

I would now like to welcome the junior Senator from Tennessee, Mr. Gore, who has had a longstanding interest in the issues before this committee. We are pleased to receive your testimony on the TVA budget today. Will you please proceed?

STATEMENT OF HON. ALBERT GORE, JR., U.S. SENATOR FROM THE STATE OF TENNESSEE

Senator **GORE**. Thank you very much, Mr. Chairman. I appreciate your courtesy in allowing me to appear here this morning.

In one sense, I am here today to say what TVA Chairman Charles Dean cannot say, that is, that the Administration's budget proposal of $72.8 million would completely cripple TVA. By eliminating demonstration projects and regional development programs, this budget recommendation would destroy TVA as we know it.

The Tennessee Valley Authority, as you and members of this committee well know, Mr. Chairman, was established as a national model for regional revitalization. It has been a tremendous success, but it has a great deal of work left to do. TVA has developed an international reputation for excellence in several important areas, from agricultural research to economic development. The Administration's budget would bring that string of successes to an end.

I strongly support an all-out, across-the-board effort to reduce the budget deficit, Mr. Chairman; but the budget cuts must be fair, and they ought to make sense. The Tennessee Valley Authority has already swallowed far more than its fair share of these reductions. If you look at the record, after 7 years of this process TVA's budget does not have much left to cut. In real terms, if you compare their budget recommendation for this coming year to TVA's budget in 1980 when this process began, it would represent an almost 70 percent reduction. And so, this year's budget request must be viewed in the context of 7 years of deep cuts, year after year after year; and in each one of those years, cuts to TVA's budget have been far larger than the average cut to other Governmental budgets.

We need to revive TVA's successful programs, not further cut them. As this committee is abundantly well aware, there are two kinds of efforts underway inside TVA: the power program, which is not financed at all by the taxpayers—it's totally self-supporting and self-sufficient—and the other activities which are intended to serve as model efforts for the entire country. Those efforts, regional revitalization and others which I will briefly mention here, are conducted with some appropriated funds. Last year, for those programs, the Environment Committee recommended a budget of $104 million. For fiscal year 1988 TVA would need $120 million just to restore its funding to the inflation-adjusted level from fiscal year 1986.

TVA is going through a period of tremendous challenge right now. Its nuclear program is in turmoil, although they are about to emerge from that turmoil. Forces within the Administration are trying to sell the agency off to private interests, although that particular recommendation has not been given the imprimatur of the President himself. For almost a year, the Administration has neglected to fill a long-standing vacancy on the TVA Board, forcing the agency to fight for its life without full leadership.

In these difficult times, therefore, TVA can hardly afford to fight a rear-guard battle against a budget recommendation that would decimate its nonappropriated programs.

TVA is one of the few agencies still standing up for rural America. And you, Mr. Chairman, as the champion of rural America yourself, understand the importance that TVA has for my region of the country and for the rest of the country, as well. I know very well that when this committee and its counterpart in the House began a few years ago to look at conservation programs, TVA had the model for conservation already worked out, which was taken from the TVA region and written directly into national legislation. There are many other similar examples.

The agency's relatively small Federal budget allows it to run extremely successful programs in many fields—agricultural research, which benefits the citizens of your State; soil conservation; farm innovation; water resource management. The Administration would slash TVA's natural resources program below maintenance levels and cut what remains of TVA's fertilizer research, until now the best in the world; and they would cut it again by another 25 percent. Many not on this committee and not familiar with TVA don't realize, for example, that TVA is the world leader in fertilizer research, and that that activity is of tremendous benefit to farmers in North Dakota as well as in Tennessee. Again, an example of its national role.

So, Mr. Chairman, in conclusion I would argue very strongly that TVA deserves better treatment as a symbol of our commitment to regional development and as proof of our success as a Nation. I urge members of this committee to spare programs that work. Again, I wish to thank you for allowing me the opportunity to speak here at the beginning of your hearing because I know, as you know, that the members of the Board of TVA are constrained by the process. OMB says to all parts of the Federal Government, you can't go up there and disagree with this or disagree with that. I'm under no such constraints, Mr. Chairman, and I'm grateful to you for the chance to lay out the facts this morning and appreciate the chance to work with you.

Senator **Burdick**. I want to thank you for your very fine testimony. I grew up with TVA in the background, in rural North Dakota. Once it was known as "the yardstick." Is it still somewhat of a yardstick?

Senator **Gore**. Sir?

Senator **Burdick**. Is it still somewhat of a yardstick for the country?

Senator **Gore**. Yes, it is. For residential power rates, for example, in spite of rate increases in recent years and in spite of difficulties with the nuclear program, the residential power rates are still the second lowest in the country, second only to the hydropower rates in the Pacific Northwest, which are increasing far more rapidly than TVA's rates.

So yes, it's still a yardstick in that respect. It has been a yardstick for utilities throughout the country in pioneering efforts to deal with the problems of acid rain. It has been a pioneer in dealing with a number of other environmental problems. I mentioned its yardstick role in energy conservation. And yes, Mr. Chairman, it still is very much a yardstick, and we still appreciate the fact that the idea for TVA did not really originate in the Tennessee Valley in Tennessee or Alabama or Georgia or Kentucky; it originated in your part of the country. One of your neighbors, Senator George Norris, really came up with the idea. And again, that underscored the national dimension of TVA.

Senator **Burdick**. I want to thank you for your testimony this morning.

Senator **Gore**. Thank you very much, Mr. Chairman.

Senator **Burdick**. Will the TVA representatives all join at the table.

Good morning. Chairman Dean, you might introduce the members of your panel.

Mr. **Dean**. On my far right, Senator, is John Shields. He's the office manager for the Office of Agricultural and Chemical Development. On my immediate right is our General Manager, Bill Willis. On my immediate left is John Waters, fellow Director; to his left, Ed Christenbury, our new General Counsel at TVA. And to his left, Bill Bond, who is the manager of the Office of Natural Resources and Economic Development.

Senator **Burdick**. You can proceed in any order that you wish.

STATEMENT OF CHARLES H. DEAN, JR., CHAIRMAN OF THE BOARD, TENNESSEE VALLEY AUTHORITY

Mr. **Dean**. Mr. Chairman, we are here to outline the President's budget request for TVA, which is $72,773,000 for fiscal year 1988. The Administration requests $32,627,000 for natural resource programs; for reservoir system operations, $21.2 million; $2.5 million for water resources to allow us to maintain certain data and address dissolved oxygen problems. And $550,000 has been requested for land and forest resources to allow us to continue to manage water levels in wetlands adjacent to reservoirs.

Resource management and development support funding totals about $2.5 million and will continue TVA's work in producing maps in the valley region. We do this in cooperation with the United States Geological survey.

Land Between the Lakes, $5.9 million.

The Administration requests $3.6 million for the Agricultural Institute; $25 million for the National Fertilizer Development Program, which Mr. Shields manages. It includes $13 million for fertilizer research and development, $9 million for technology introduction, and $3 million for hardwood fuels research and testing.

We have a request for capital investment of about $10.7 million, some of which is for dam safety modifications as a part of the Federal program. The request for fertilizer test facilities is $4 million and for general facilities, $1.6 million in 1988.

Now, Senator Gore mentioned the fact that we are also very much in the power business, and this is not financed by appropriations. In fact, every year the power system returns to the Federal Government principal and interest at the current average rate of all U.S. Treasury marketable obligations, which is in conformance with laws that were passed years ago, where we actually are paying back the Federal investment in appropriations in the power system.

You heard about our nuclear program. I'd like to say that we are making considerable progress in bringing our nuclear units back into operation. Admiral Steve White is back with us and he's working every day to try to marshal the forces necessary and get our plants on line. In addition, we have hired a gentleman by the name of Bill Derrickson to be advisor to the Board. Mr. Derrickson is an expert in the construction of nuclear plants, and he will be of great benefit to us.

In other areas, the power program has performed very well. Despite the lack of nuclear generation most of our power, about threefourths of it, has been generated by our fossil plants, and some of our fossil plants are among the best in the world. We are probably the second largest coal burner in the United States. We have a good hydro system; we've been a little short of rain, but we've made it through the year and we're looking forward to a better year this year. In fact, I think it's raining in the valley today.

We have, as Senator Gore pointed out—we have always had the leadership in conservation programs in the valley because we think that's important for our children and our grandchildren. We have the capability of cutting electricity consumption by over seven billion kilowatt hours by the year 2005. We've actually conducted surveys in a million homes to assist the homeowner decide what conservation measures they need to save money.

We have a cooperative program to test and demonstrate advanced technologies that can help the power industry improve its performance and meet future demands. We are building, in Paducah, Kentucky, an atmospheric fluidized bed combustion plant, which 65 percent of the detailed engineering is complete. It's a cooperative venture, with TVA taking the lead role. We think that this fluidized bed plant will revolutionize power boilers in the future, and we have a lot of interest all over the country. We invite you and your friends to come down and visit it whenever you get a chance. Senator Stafford, I notice, has come in; and Senator Stafford was there the day we kicked that project off. He was there for two reasons. One, he's our friend; and two, he has a deep interest in clean air. He sees this as a project as the wave of the future, and we're proud to be a part of that. We have a lot of high-sulfur coal in our area and this will enable that to be used productively for the good of the country in the years to come.

Now, that takes care of our discussion of the Administration's proposal for TVA, Mr. Chairman. There will be more detail submitted, of course, for the record, and we would be pleased to answer whatever questions you'd like to ask us about our budget.

Senator **Breaux** [assuming chair]. Thank you very much, Mr. Dean. I apologize for coming in late.

I would recognize Senator Stafford if he would have any opening comments that he would like to make.

Senator **Stafford**. Thank you, Mr. Chairman. I really don't have an opening statement this morning. I have been interested in TVA for some time; and as Mr. Dean has pointed out, I am particularly interested in the success of the atmospheric fluidized bed combustion plant and look forward to the time when that will come on line. I expect it to demonstrate successfully what the little 20-megawatt plant was doing near Paducah, Kentucky some years ago.

I am looking forward to the rest of the testimony. I will have some questions later.

Mr. **Dean**. Senator, I'd like to point out that the project is a year ahead of schedule, so we'll have it on sooner than we thought.

Senator **Breaux**. I would ask unanimous consent that my opening statement be made a part of the record. I would point out that, in the statement, I mention the uniqueness of TVA. I come to this committee and TVA as a Senator whose State is not directly touched in any way by the benefits of TVA, but certainly one who recognizes its uniqueness within the Federal Government structure, the work that it has done in the past. I also would say that I plan to be actively involved to learn as much as quickly as I can about TVA and the programs under your jurisdiction. I note that with regard to nuclear power coming from TVA, the nuclear industry program, I do know that it has encountered some problems in recent years. That is not the subject of the hearing this morning; I intend to have a separate hearing on that and we'll invite members to come before the committee and we'll have discussions on that at that time.

[Senator Breaux's statement follows:]

OPENING STATEMENT OF HON. JOHN B. BREAUX, U.S. SENATOR FROM THE STATE OF LOUISIANA

Mr. Chairman, I want to thank you for calling this hearing and providing the Members of the Committee an opportunity to discuss with today's witnesses the President's fiscal year 1988 budget request for the Tennessee Valley Authority (TVA) and the Nuclear Regulatory Commission (NRC).

It goes without saying that the TVA is a unique institution within the Federal establishment. It's creation, in 1933, marked a watershed in this Nation's involvement and oversight of what was once one of this country's most economically depressed regions. I believe that it can be demonstrated that the betterment of the seven state region incorporated within the TVA system can, in large part, be attributed to the over 50 year involvement, and stewardship, of TVA in the region's affairs.

Mr. Chairman, as the Members are aware, the President has requested just under $73 million ($72,773,000) for TVA's appropriated activities during fiscal year 1988. While this request represents an increase of almost 26 percent over the President's fiscal year 1987 budget request, it also represents a decrease of roughly 27 percent from last year's Congressional appropriation. Obviously, the issue arises as to whether TVA will be able to carry out its basic missions with this level of appropriated funding.

I will be particularly interested, Mr. Chairman, in determining if the proposed cuts in TVA's natural resource activities will allow the Authority to:

(1) adequately monitor water quality in the valley region;
(2) properly manage wetland areas adjacent to its reservoir system; and
(3) effectively continue its assessment of the impacts of acidic deposition.

I am also concerned about the over 50 percent reduction in funding for the dam safety modification program, especially in light of the fact that the agency has identified 21 dams that do not, or may not, meet the criteria for new dams consistent with the Federal Guidelines for Dam Safety.

Finally, Mr. Chairman, I think the Committee needs to carefully consider the level of funding requested by the Administration for the upgrading and basic maintenance of recreation areas under the Authority's sphere of operation, especially in light of the important role that so many of these areas hold for the tourist industry and overall economic health of the region.

With the respect to the NRC, this agency is perhaps in a somewhat envious position from the budgetary standpoint, being one of the few federal agencies that is up for a budget increase under the President's proposal. Of course, following year's of budget decreases, some will undoubtedly argue that the requested increase is still insufficient if the agency is to successfully pursue its legislated mandate.

I think it is fair to say that this years budget request, in combination with the proposed staff reorganization, is designed to reflect a shift in the principal activities of the agency, if not its overall philosophy, from a program emphasizing the licensing of new plants to one monitoring existing plants. And given the fact that we have 107 licensed plants, only 18 under construction, and no new construction applications, this shift in emphasis is perhaps appropriate.

While I can appreciate the temptation, Mr. Chairman, for Members to discuss a broad array of policy issues in today's hearing, particularly in light of recently publicized NRC staff initiatives related to the emergency planning issue, I would hope that we can remain focused on a number of budget issues presented to us by the President's request. It would be my hope to shortly announce Subcommittee hearings on the NRC Authorization, which is, I believe, a more appropriate forum to resolve the emergency planning issue, among others. I also hope that the Subcommittee will be able to shortly conduct an oversight hearing on nuclear waste issues, as well as begin the process of examining the necessary extension of the so-called Price-Anderson legislation.

With those opening comments, Mr. Chairman, I am pleased to join you in welcoming today's witnesses and look forward to their testimony.

Senator BREAUX. Let me ask just a question or two about the budget request that we have before us this morning.

Senator REID. Mr. Chairman, would you yield for a brief statement?

Senator BREAUX. Certainly.

OPENING STATEMENT OF HON. HARRY REID, U.S. SENATOR FROM THE STATE OF NEVADA

Senator REID. Mr. Chairman, I thank you for holding this hearing today to review the proposed budgets of the Tennessee Valley Authority and the Nuclear Regulatory Commission for fiscal year 1988. I look forward to the opportunity to review the statement made by my colleague and good friend from Tennessee, Mr. Gore. I appreciate his having come here, as well as the testimony submitted by the Chairman and the Directors of the Tennessee Valley Authority.

TVA, as we know, is a Government-owned corporation created by an act of Congress in 1933. To a westerner, TVA is synonymous with electric power; in addition, TVA oversees a wide range of programs important to economic growth in the Tennessee Valley region, and it has been a program that we've all watched with interest over the years in the west.

The budget proposals submitted to Congress by the Administration for the Tennessee Valley Authority request almost $73 million for TVA's appropriated programs in fiscal year 1988, compared to $100 million appropriated just last year; at least, that's my understanding. It's my understanding that the funds appropriated by Congress are in addition to TVA's power program, which is financed from the sale of electric power.

I'm sure this committee will carefully monitor the Administration's budget proposal for the TVA to ensure that the agency can carry out its statutory mandate for the natural and human resource development of this region.

Secondly, I am pleased to have the opportunity to study in depth, the budget submitted by the Administration for the programs of the Nuclear Regulatory Commission. In recent years, the NRC has shifted its focus as an agency that essentially licenses nuclear powerplants to an agency that monitors the operation of these plants. The alteration in the Nuclear Regulatory Commission's role now gives the agency more responsibility for protecting the environment and the health and safety of the public. The NRC will license the high-level waste repository, provided independent NRC determination shows that expected performance is adequate to protect public health and safety and the environment.

The State of Nevada, my State, holds the dubious distinction of being one of the three potential sites selected to house the Nation's first high-level nuclear waste repository. Consequently, there must be a high degree of cooperation between the NRC and the Department of Energy with respect to the high-level nuclear waste program. I'm anxious to learn of the NRC's ability to comply with its oversight responsibilities regarding DOE's implementation of the program.

Mr. Chairman, I have several questions to ask the witness concerning NRC's role in the future disposal of high-level nuclear waste. Of course, that can wait until the appropriate time.

I appreciate your yielding and thank you for the opportunity to present this brief statement outlining some of my concerns.

Senator **Breaux**. I thank the Senator.

Are there any other members of the panel that have statements they would like to present at this time, or submit them for the record?

Mr. **Waters**. Mr. Chairman, I'd like to just make a few opening remarks, if I may.

Senator **Breaux**. All right.

STATEMENT OF JOHN B. WATERS, DIRECTOR, TENNESSEE VALLEY AUTHORITY

Mr. **Waters**. As the second Board member for TVA—as Senator Gore pointed out, we are supposed to be a three-member Board; there are only two of us now. There's one vacancy.

I know that this committee is concerned, as TVA is, of the fact that Americans in general are questioning some of their systems of government, and TVA is indeed in that limelight and in that situation. We are very much aware that we must be as efficient; indeed we must be more efficient than other agencies. We must prove to this committee, as well as to the entire Congress that we can effectively operate the programs that we're asking for funding to operate; that there is a need for those programs; that what we're doing is not duplicative; that in general what we are doing has a national application and is worthwhile to the Nation, not just to the Tennessee Valley region.

We think that we are able to make that case. We are very mindful of that burden that we must carry, and we intend to continue to be mindful of it.

TVA does have a proud history and has developed many things, as the Chairman has pointed out—atmospheric fluidized bed technology among them—that have a national application, and many other innovative programs that have, I think, provided a good return on investment.

David E. Lilienthal, one of TVA's first directors, made a statement in the preface to his first edition of his book, "TVA Democracy on the March"—it's still very applicable today. Mr. Lilienthal said, "I believe man may learn to work in harmony with the forces of nature, neither despoiling what God has given, nor helpless to put them to use." I think that still very well states the guidelines that we're trying to operate under today. If we can continue to efficiently and effectively manage our natural resource programs, continue operating in the Tennessee Valley, the world's most highly-developed river system, continue operating what I think is one of the most worthwhile projects in the country—the 170,000 acres of land in the Land Between the Lakes, a complex up on the Tennessee-Kentucky border, continue to promote the management of wildlife in the face of the shrinking habitat that wildlife is suffering in the country, and in general to do the environmental energy education that needs to be done, then we can continue to earn the confidence of this committee and the Congress. And I assure you, Mr. Chairman, that that is our goal and our aim, and we intend to be ever alert to opportunities to improve on that efficiency should this committee and the Congress allow us to continue.

Thank you, Mr. Chairman.

Senator **Breaux**. Thank you, Mr. Waters. I appreciate your comments.

I recognize Senator Stafford for any questions he may have.

Senator **Stafford**. Thank you, Mr. Chairman.

I think I would address these questions, Mr. Dean, to you, or Mr. Waters, or either of you who feels willing to answer.

First, could you please describe in more detail the ongoing air quality monitoring and research and development activities which would be eliminated under the President's proposed budget? Are these activities closely coordinated with the Environmental Protection Agency? And I might say, Mr. Dean, if you want one of your associates to answer in your place, that's perfectly agreeable.

Mr. **Dean**. Mr. Willis has some detail on that.

Senator **Stafford**. All right.

Mr. **Willis**. Senator, I'd be pleased to answer that.

We've had a lot of development going on in low-cost reclamation techniques to minimize soil erosion, and that gets to the land base problems, particularly in the river basins. We've developed remote sensing tools for detecting non-point source problems getting into the river streams, and some new, state-of-the-art, two-dimensional modelling that we've come up with for dealing with the complex water quality problems that we're facing in the Valley. And we believe we're in the forefront of developing solutions to these problems.

Also, we're working very closely with partners at the EPA and the State officials, the State water quality people, on addressing the animal waste control problems that are polluting a lot of the streams in Tennessee in the farmland areas. And that's a very successful program that's going on.

Ground water protection is another problem. A lot of the people in the Tennessee Valley get their water from the ground rather than out of the rivers. There are a lot of contamination problems with that. We're working with communities, the EPA, and the States on finding ways to prevent pollution from getting to the wellheads. We have been very successful in those programs in the last year or two.

In the air quality management area, we're gathering important information by doing a lot of monitoring. We're trying to find the impact of pollutants on the agriculture and forestry areas in the Tennessee Valley, and streams. We're going to lose—even though we've been working very well with EPA—a lot of our remote rural sensing capability needed to really get a good feel for this. We've had good cooperation with EPA. We're working very hard on a joint venture with them and the States, and we have several good monitoring programs going on through that program across the entire region.

Specifically, Senator, there would be three major monitoring stations associated with our acid rain program, and for several ambient air quality monitoring that would have to be eliminated. TVA has also been active in the monitoring and study of toxic air pollutants. These activities would be eliminated also.

Senator STAFFORD. My understanding is that 77 percent of your power is coal-generated, that is, your utility power.

Mr. DEAN. Yes, sir, it is now, with our nuclear plants shut down.

Senator STAFFORD. And do I also understand that the powerplants that are burning coal are in compliance with the existing atmospheric contamination standards?

Mr. DEAN. Yes, sir. TVA has spent over a billion dollars to bring our plants into compliance, and we have cut a million tons of SO_2 out of our discharges. We are in compliance with Federal law.

Senator STAFFORD. Will the reductions in your proposed budget seriously affect your ability to deal with water quality problems which you have recently experienced in the reservoir system? I may have touched on that, Mr. Willis, but you might respond.

Mr. WILLIS. What we found out this last year during the drought, Senator, was that we have taxed our river system in the sense that we've had a lot of dissolved oxygen problems show up because we're just not getting the water flow through the reservoirs that we had. It's become particularly troublesome in the Kentucky Lake Reservoir, which is the biggest in many ways and is at the lower end of our system. It is a funnel in that all the water in the Valley comes through it. But what we've found down there is that we have a lot of problems from what we call non-point sources, runoff of one kind or another—agricultural runoff, feedlots, even cities contribute to this type of runoff. We are just launching studies which we think have tremendous implications nationally in this field. Part of it is conducted at the fertilizer center under John Shields because they've got to figure out ways to grow things without having the fertilizer wash off and destroy the oxygen in these reservoirs.

You know, this is something that has tremendous implications nationally because you can only use your waterways for things like industrial development as long as they have enough oxygen in them to assimilate waste. Otherwise, you've got a dead river or a dead lake.

So we think that even after all these years, we've still got a long way to go in protecting and improving water quality because the situation keeps changing. What we're involved in is important to the country and certainly important to the Valley that we're committed to serve.

Senator STAFFORD. Thank you.

As you're aware, the new Clean Water Act does propose a program to begin addressing the problem of non-point sources. In some parts of the country it appears likely that just plain land erosion into the water may be as much of a problem as insecticides, fertilizers, and the other runoffs that you could anticipate.

Mr. WILLIS. Senator Stafford, may I comment on that?

Senator STAFFORD. Yes, you may, indeed.

Mr. WILLIS. One of the things that we might have to cut way back on if the Administration's budget proposals go through is the very thing you're talking about. We are involved in extensive programs for cropping without ploughing, and we've been developing that concept for a long time. As I understand it, John Shields, we'd have to cut out a lot of that work, right?

Mr. **Shields**. We would have to reduce it considerably, yes, by 20 or 25 percent.

Mr. **Willis**. As far as erosion is concerned, though, I can't help but comment that we're losing, I believe—and John Shields will correct me if I make an error in this statement; I hesitate to say it, it sounds so big—10 tons per acre per year.

Senator **Breaux**. That's serious.

Senator **Pressler**. Will the Senator yield?

Do you all have cooperative programs with Soil Conservation in USDA on doing that?

Mr. **Dean**. Yes, sir.

Senator **Pressler**. Well, they would be continuing their work in the TVA areas with regard to soil erosion, wouldn't they?

Mr. **Shields**. Thank you, Mr. Chairman.

We are the lead agency for a model program that is implemented through a memorandum of understanding signed by the Department of Agriculture, the Secretary; the chairman of our Board, and the Governor of each of the seven Valley States, representing the Soil and Water Conservation Districts. We have pooled our resources into what we call Land and Water 201, which is designed to deal with the water quality runoff problem, the erosion problem, and use demonstrations of model farms to determine how you best and effectively—particularly from a cost standpoint—can control these problems so that farmers can farm under normal conditions.

Senator **Pressler**. How much does USDA kick in, financially?

Mr. **Shields**. I'm sorry, sir?

Senator **Pressler**. How much does USDA kick in, financially, for the program? Or do they run it in-house?

Mr. **Shields**. They run it in-house, just like we do. We each put in our own resources. I'm not privy to the exact dollars they put in, but we do have in our program a USDA employee from the Soil Conservation Service , on loan to us, as well as an employee from the EPA. EPA has just now joined the program as a full partner, as well.

Senator **Pressler**. So the point is that it's a big problem, but work is being done on it even in light of this budget request, and will continue?

Mr. **Shields**. That is right, sir.

Senator **Pressler**. All right.

Mr. **Dean**. It's being done now, yes, sir. It's a cooperative venture.

Senator **Stafford**. Mr. Dean, I see that your budget item 4, artificial wetlands research, has been eliminated. Do you care to comment on that or have someone on your staff comment on the impact of that?

Mr. **Dean**. Mr. Willis has some material on that.

Mr. **Willis**. Yes, sir. We were finding some very interesting things through our wetlands research. We find that wetlands can assimilate a lot of community waste there are several new technologies that we've developed, that are getting a lot of nation-wide attention, we have been working particularly with three communities in Kentucky on demonstration projects in this area. We're also working in the mine reclamation areas. We find that we can create artificial wetlands and take care of very troublesome water pollution problems by using the wetlands. We're on the verge, I believe, of conducting major demonstrations that could be applicable across the country, particularly in small communities that are having very difficult problems in assimilating and disseminating their sanitary waste from their sewage systems. And these projects that we have in Kentucky promise to demonstrate a very cost-effective way to take care of that waste problem. We've used partnerships with the State of Kentucky and some of the cities up there to run these research projects. They show very promising results already.

Mr. DEAN. One project that indicates the kind of cooperation between our power and our non-power people is that we take the water that comes out of a steam plant, like at Gallatin, and run it through these wetlands, and you've got wildlife out there, and the water comes out the other end absolutely pure enough to drink.

Senator STAFFORD. Mr. Dean, you brought me to the next question I had in mind, and that is the trend nowadays towards user fees in various aspects of our society. It has to do particularly with the fact that some of your lakes or reservoirs are used for fishing. I believe that in some privately-owned utilities lakes are also used for that, but the cost of maintaining them for fishing purposes comes out of the utility. My question is why, in this age, should not TVA's budget sustain the cost of maintaining fishing in some of your reservoirs?

Mr. DEAN. Unfortunately, under the provisions of the TVA Act the lakes are primarily used for flood control and navigation and for power. There is no provision in the TVA Act for recreation at the expense of those three purposes. As a result of that lots of times, to comply with our flood control requirements, for instance, we'll let some of these so-called recreational lakes down to rather low levels, and we catch a certain amount of static for that. But they're not operated primarily for recreation; in fact, that's a very distant part of our Reservoir operation even though there are some important benefits from it, of course.

Senator STAFFORD. Would it be expensive to pick up the cost of keeping fish in these reservoirs?

Mr. DEAN. Well, the fish are there and the fishing is good; but as I say, we cannot guarantee the levels of the lakes to suit the recreational users. And that's just part of the balance that we have to go through to operate the system.

Senator STAFFORD. All right.

One last question, and that is along the same line. Since much of the problem of acidic deposition and air pollution is caused by coal-burning powerplants, might I ask the possibility of TVA's paying for air pollution monitoring and research work that is performed.

Mr. DEAN. We've got some of those that are supported by the power program now, particularly work we do in conjunction with the Electric Power Research Institute. We've had some funds coming in from appropriated sources where we think the research is particularly applicable to national trend analysis.

Senator STAFFORD. All right. Thank you, gentlemen.

Thank you, Mr. Chairman.

Senator BREAUX. Thank you, Senator Stafford.

Let me ask a couple of questions in the natural resources area. I notice in looking at the blue book program budget submission to the committee that in natural resources, we've got a $37 million request for appropriations, but you also use other sources for funding for your natural resources program: power proceeds, $10 million; non-power proceeds, $1.8 million.

My question is what's your authority for using other sources of funding to come up with this mix? How do you determine what percentage you're going to request from appropriated funds from Congress, and how much comes from the power source and how much comes from other sources? And tell me what "other sources" proceeds would be, non-power sources.

Mr. DEAN. Mr. Willis has those numbers, Senator.

Mr. WILLIS. Some of the money that comes from the power program that goes into natural resources occurs just as if the power managers hire our natural resources staffs as they would contractors. When they have to do environmental research on siting a plant, they may just contract to the natural resources program to do the monitoring or do an environmental impact statement for them, or do some reclamation plan for them in the case of mining operations. That's how the money is determined. They require those services and we have the expertise in our natural resources program to do that, and they——

Senator BREAUX. So that is to say that any kind of contracting-out for studies, environmental impact statements, etc. would come from the power source?

Mr. WILLIS. Well, if it relates to a power plant, the power people pay for that out of their funds. They buy that from the appropriated end.

The other sources, we have funds from the Land Between the Lakes where we charge fees for certain camping facilities. We have sale of timber on lands and things like that; that's where the other type resources come from.

Senator BREAUX. Are natural resources, then, that come out of the appropriations not related to power?

Mr. WILLIS. Yes. That's not related to power, there. That's strictly appropriations money. That's work in forestry, wildlife, fisheries, managing the reservoir system and the associated lands around it as much as any other thing. We operate that reservoir system like the Corps would in other parts of the country.

Senator BREAUX. Is there a specific authorization that says you divide it up one-third or three different ways, or is that just under your general authority?

Mr. DEAN. No, there is no predetermined mix of funding overall. As Mr. Willis indicated, the power program pays for the services it uses. User fees offset some of the remaining cost; appropriations may for the balance. We do have some requirements under the act that where we have a multi-purpose project, where a dam was built that has navigation benefits, has recreation benefits, and has power benefits, we do have a requirement to allocate the costs based on the percentage of those benefits that apply to the whole. So we do have that requirement. It's like a capital investment, that the charges for operating that multi-purpose project are allocated according to formula.

Senator **Breaux**. All right.

I notice with some concern that there is over a 50-percent reduction in the program for dam safety and the modification program. That especially concerns me in light of the fact that some 21 dams have been identified by the agency that may or may not be meeting the criteria. Are there specific projects or steps that were planned to be taken to meet the dam safety requirements which will not be able to be met now because of the 50 percent reduction?

Mr. **Dean**. We're in compliance with the terms of the national dam safety program, Senator, and I don't believe——

Mr. **Waters**. I'll speak to that budget cut. It's not actually a cut; we got what we requested. The reason the number is down from last year is that due to a projected delay in 1986, funding for that project shifted from 1986 to this year. So it bumped it up higher than 1987 would normally be. But our $2.6 million, I believe, that's in the budget for 1988 is what we requested to keep our dam safety program on a schedule that we had worked out a few years back. We're not suffering a cut; it might have some ups and downs because the capital budget may slide over from one fiscal year to the next. So the program is on schedule. We have a good seven-year program to do the assessment and figure out what the returns are.

Now, even though we have a modest amount in there for dam safety this year, it keeps our program on schedule. We are anticipating some heavier years out three and four years as we get to some modifications that may be required on the mainstream reservoirs.

Senator **Breaux**. Are there not dams that had been identified, then, as not meeting the safety criteria?

Mr. **Dean**. We have some dams that are not meeting the safety criteria that would apply to newly constructed dams. We've done an assessment from a risk standpoint and we've prioritized our work on them, and we're following the Federal guidelines right on target with that.

Mr. **Waters**. Most of them are the smaller dams up in the tributaries, not the mainstream dams.

Senator **Breaux**. Approximately how many would that be, do you know?

Mr. **Dean**. How many, sir?

Senator **Breaux**. How many would that be?

Mr. **Dean**. We've got about five under our current program right now; then there's about six others beyond that that are on out in the future, to be addressed.

Senator **Breaux**. Can we be assured that, from a safety standpoint—you're telling the committee that you're on schedule?

Mr. **Dean**. Yes, sir.

Senator **Breaux**. And you're meeting all requirements as far as being on schedule for dam safety repair?

Mr. **Dean**. Yes, sir. We originally prioritized and took the ones that had the worst risk first and went after them, and we're working down the list on the schedule.

Senator **Breaux**. Let me now go to Senator Pressler.

Senator **Pressler**. Thank you very much, Mr. Chairman.

Let me say that I am, first of all, thankful that you are holding this hearing, Mr. Chairman, and I thank the witnesses. I am not one who has been deeply involved in the TVA process but I am very interested in learning more about it, and I see the purposes listed there. Of course, when I vote for something I always have to justify it to the people of my State; and I know that it's a laboratory for demonstrations of national significance and conservation and management of the Valley's natural resources is certainly important. I'm always willing to help out another part of the country, because my part of the country needs help sometimes. I see the electrical power at the lowest feasible cost and the economic and social well-being of the valley region, all goals that I would, in general, agree with. But on the other hand, these are the same kind of goals that I would like to see achieved in my area and my State, and there are some programs there.

But in a capsule form, what benefits would the people of South Dakota receive from my voting for this subsidy?

Mr. **Dean**. When TVA was formed, it helped a part of the country that was in desperate shape. We still have parts of the area that we serve that need a lot of special attention. But most of the programs that TVA is involved in today are programs which really benefit the country as a whole. For instance, we have some programs in South Dakota with our fertilizer——

Mr. **Willis**. We've got people out there.

Mr. **Dean**. We have one of our field agents that is stationed in South Dakota.

Senator **Pressler**. Yes. Well, some people would debate that. Some farmers are beginning to say that we're exporting so much technology in agriculture to other countries that we're no longer able to export food, and so forth. There are lots of circuitous arguments.

Let me go to the nuclear powerplants. You said you have five plants, but none of them are producing at this point? What is the situation?

Mr. **Dean**. We have five licensed reactors. We shut them all down in 1985, and we've had to go back and rework to meet, for example, environmental qualification requirements. We've brought in a pretty large outside group of contractors, and then we've hired Admiral Steve White—he's a retired Navy Admiral—to coordinate the program and get the plants back in shape. We're making good progress. We expect to have some reactors running this year.

Senator **Pressler**. Do you think the requirements are overly stringent in getting those reactors working again?

Mr. **Dean**. No, sir. The American people ask for and expect to have a very safe nuclear program, and that's what they're getting. That's what people want and that's what they're getting. The requirements—yes, they're stringent; you have to have good documentation. When you've got a piece of equipment in a nuclear plant you've got to know exactly where it came from, exactly what it's made of, and what it will do under certain circumstances of high temperature, for example. Those are reasonable requirements; TVA had fallen behind, and now we're catching up.

Senator **Pressler**. Senator Stafford's earlier question regarding acid rain—if those plants were running in lieu of some of the coal-fueled plants, would there be less of an acid rain contribution?

Mr. **Dean**. That's correct. We were unfairly criticized in an article recently for putting out more SO_2 this year. What the article failed to account for was that because the nuclear plants weren't running, we had to burn much more coal. So naturally, we did put out more SO_2.

Senator **Pressler**. So, if you could replace all the coal-fueled plants with nuclear plants, you would be contributing nothing to acid rain?

Mr. **Dean**. We don't have that many nuclear plants, Senator.

Senator **Pressler**. But if you could have that many more?

Mr. **Dean**. Well, that's correct. Nuclear plants don't put out sulfur dioxide.

Senator **Pressler**. Okay.

I want to be sure I understood your answer to Senator Stafford's question. In your view, are you prepared to help pay for the costs of acid rain?

Mr. **Dean**. TVA has taken the position that the country needs further reductions in sulfur dioxide, and we have said consistently that we are willing to do our part. The only discussions that we ever get involved in are, what's a fair way to get the job done? And that's a whole other subject, as Senator Stafford will tell you.

Senator **Stafford**. If the Senator would yield, earlier I asked the Chairman about their compliance with current clean air standards, and they have fitted all of their steam-driven plants that use coal to meet the current clean air standards.

Mr. **Dean**. We've done that, Senator, with either scrubbers or using lower sulfur coal and large electrostatic precipitators.

Senator **Pressler**. Thank you very much.

Senator **Breaux**. Let me ask just a couple of quick questions that we need for the budget submission.

Last year it was $100 million. Is that correct?

Mr. **Dean**. Yes, sir. We had about $6 million carry-over, and there's $100 million on top of that.

Senator **Breaux**. So what would it take to maintain at a current services level, last year's programs of $100 million for 1988?

Mr. **Dean**. We asked for about $114 million to do that.

Senator **Breaux**. To maintain current services from last year?

Mr. **Dean**. Yes, sir.

Senator **Breaux**. That's not any enhancement for any new programs?

Mr. **Dean**. No, sir, just to hang in there.

Senator **Breaux**. And that's what was requested of OMB? I mean, up through the ranks, to maintain——

Mr. **Dean**. Yes, sir.

Senator **Breaux**. So $113.4 million, I think, is what the request is?

Mr. **Dean**. Yes, sir.

Senator **Breaux**. And that's for current services at last year's $100 million level?

Mr. **Dean**. That's correct.

Senator **Breaux**. Thank you.

Senator Symms, any questions?

Senator **Symms**. No questions, Mr. Chairman, thank you.

Senator **Breaux**. Does anyone know if Senator Simpson has questions?

Mr. **Dean**. We will be delighted to answer any questions.

Senator **Breaux**. All right.

Senator Simpson is on the way, but his staff informs us that he's going to submit his questions to the panel.

We want to thank you. We'll have some other questions coming, and thank you for your appearance.

[Responses from the Tennessee Valley Authority to additional questions follow:]

Stafford

1. Question: Please provide a graph depicting TVA's appropriated budget in real and constant dollars for the past ten years (since Fiscal Year 1977). Please provide an explanation for any major fluctuations or trends that are made apparent by the graph.

Answer: The attached graph is supplied for your information. The data includes extraordinary appropriated amounts as follows:

1980-1981--A total of $125,000,000 in these fiscal years to finance the North Alabama Coal-to-Methanol project.

1983--$40,000,000 through P.L. 98-8, the Jobs Bill.

1984--$7,400,000 to finance the Ocoee Riverway Recreation project in Tennessee.

1985--$5,000,000 to finance a water pipeline in Bristol, Tennessee.

(0450D)

Stafford

2. Question: Please describe ongoing water and air quality initiatives and programs which would be eliminated under your fiscal year 1988 budget request.

Answer: Throughout the Tennessee Valley, TVA is pursuing initiatives of vital concern in water quality management that would be eliminated. TVA's development of low-cost reclamation techniques to stop eroding land in the Ocoee and South Holston River Basins, remote sensing as a tool for correcting nonpoint source problems, and state-of-the-art, two-dimensional mathematical modeling to unravel complex water quality problems are at the forefront of water resources management in the Nation. Armed with unique technical capabilities and in cooperation with State and local governments and the public, TVA is carrying out an aggressive program to identify and correct water quality problems in its reservoirs and in critical watersheds. Work is progressing at Boone, Ft. Loudoun, Tellico, Guntersville, Pickwick, and Cherokee Reservoirs. Water quality management plans are being developed for Kentucky, Watts Bar, and Wheeler Reservoirs.

In the South Fork Holston, Duck River, Bear Creek, and Town Creek watersheds, animal waste pollution control methods are being demonstrated to stop bacterial contamination which impairs recreational use and water supplies. Aeration techniques are being developed to control iron and manganese levels in reservoirs. Toxic substances such as PCB's and mercury, which have contaminated reservoir fisheries, are being located and cleaned up.

In the critical area of groundwater protection, TVA is conducting demonstrations of national significance to show local governments how they can prevent contamination of wells and springs. These demonstrations, implemented before the new Safe Drinking Water Act was passed, are developing techniques and approaches to guide all groundwater supplied utilities in ways to protect wellheads. Most of these actions rely on common sense and are low-cost, low-technology solutions.

All these unique capabilities in reservoir modeling, non-point-source assessment, land reclamation, and groundwater protection would be curtailed. TVA, the steward of a multi-billion-dollar reservoir system, would no longer be able to participate in or even provide vital information for critical decisions affecting water quality and use of its reservoirs.

The proposed budget would also eliminate the entire TVA regional air quality management program. Technical support to regulatory agencies and industry in identifying and resolving air quality problems would be eliminated. Valley-wide assessment of toxic air pollutants would be stopped, just when concern for such matters is growing. Rural air quality monitoring, the only source of data on long-term background levels of regulated pollutants in the southeast, would be eliminated. This data is a vital resource in current and future research, development of regulatory standards, and economic/industrial development. Three acidic deposition monitoring stations in the NAPAP national trend network would be discontinued, drastically reducing the network's effectiveness. Cooperative ambient monitoring projects would be cut, leaving State agencies to carry the entire load, a burden for which they are not prepared. Finally, a project to assess the level of ozone in the Valley and its impact on Valley forests and agricultural crops would be discontinued, just as an understanding of ozone formation and damages is reaching a potentially useful stage.

Stafford

3. Question: Please describe in some detail TVA floodplain management activities which would be eliminated in fiscal year 1988. As part of your answer, please describe TVA's general authority and history with respect to flood control and your relationship with the U.S. Army Corps of Engineers (USACE) and the Federal Emergency Management Agency.

Answer: The limited funding proposed in the President"s budget would essentially eliminate our ability to conduct an aggressive flood damage reduction program in the Tennessee Valley. It would restrict TVA to a passive role of providing data from existing files and offering some generalized advice about flood protection efforts. Field staff that provide specialized engineering assistance for which communities and individual decisionmakers come to TVA hundreds of times a year would be eliminated.

This specialized effort includes helping local officials understand flood hazards and how to incorporate flood damage prevention into their programs and plans by finding ways to accommodate orderly growth and development consistent with this hazard. Engineering support for sound and effective administration of local floodplain regulations is provided so that development avoids causing increased flood levels and resultant damages to adjacent properties. Assistance is also given in identifying and evaluating specific flood damage reduction measures for local implementation.

TVA's floodplain management program complements and strengthens the flood insurance efforts of the Federal Emergency Management Agency (FEMA). We promote the National Flood Insurance program and assist communities to meet the requirements for enrollment and continued participation. Any technical information that TVA develops for its floodplain management assistance purposes that would also be useful in the flood insurance program is provided to FEMA. Our program in the Valley region closely parallels objectives of the USACE elsewhere in the Nation. In the Tennessee River watershed the USACE has not developed the technical data base and knowledge of local flood problems, community situations, and needs required to provide floodplain management assistance, instead deferring to the established capability of TVA.

With regard to TVA authority and history in flood control, the need to control destructive floodwaters was a primary reason for creating TVA. The TVA system of dams and reservoirs provides a substantial degree of flood reduction on the Tennessee River, some major tributaries, and downstream along the lower Ohio and Mississippi Rivers. However, hundreds of communities within the Tennessee River watershed lie along rivers and streams unaffected by the reservoir system or receive only partial flood protection. In response to this situation TVA pioneered a "floodplain management" approach in 1953 based on the concept that local officials and other decisionmakers armed with information on flood-prone areas could and would develop programs and take action to deal with flood problems.

The need for a strong TVA role in providing flood hazard information and specialized floodplain management assistance will continue from the knowledge that local flood patterns and severity are constantly evolving. TVA's advocacy of nonstructural solutions for further flood damage prevention greatly reduces the need for additional public works projects which could be economically and environmentally unsound. Also reduced are costs to the Government for flood fighting, flood insurance payments, and postflood recovery.

2/6/87—1416D (0450D)

Stafford

4. Question: Please describe TVA's work with artificial wetlands. How many demonstration projects of what size are presently operating? How many new projects of what size were originally planned prior to your budget passback from OMB? What other Federal agencies are either participating in this work or doing similar work on their own? What will become of these projects under the proposed fiscal year 1988 budget? How much will it cost to continue operating, maintaining, and gathering useful data from these projects?

Answer: National and State legislation has resulted in significant progress toward cleaning the Nation's waterways. However, there is still significant work that needs to be done. In the Tennessee Valley, water quality and wastewater treatment problems are similar to those elsewhere in the Nation. Although many areas need improved wastewater treatment, little can be done until communities and businesses can build systems which are affordable and certifiable.

In the Tennessee Valley, TVA is cooperating with the Commonwealth of Kentucky to demonstrate the manmade wetlands treatment process. This process uses an engineered wetlands to treat wastes by natural processes instead of expensive, complicated mechanical systems. This new process will not only meet secondary and most required advanced level standards, but has the potential of saving literally billions of dollars nationally on capital costs, with over $3 billion in savings alone for small public systems where the need is great but resources are severely limited. This would reduce costs for both local governments and the public and enable the limited amount of Federal funds available for construction grants to go further. The process can also be used by private developers, saving them money when applied to various industrial and agricultural wastes.

The potential of the process will only be realized if effective demonstrations are planned and conducted so that the results can be conveyed to community leaders, consulting engineers, developers, and particularly to regulatory agencies. Our demonstrations are already receiving regional, national, and international attention.

TVA's current projects are in Benton (population 3,400), Hardin (600), and Pembroke (1,100), Kentucky, sites which will provide three demonstrations of four different types of manmade wetlands for domestic sewage treatment in small communities. TVA has cooperated with private industry in the design of two housing development wetlands waste treatment demonstrations, and successfully used such systems to turn acid mine drainage from strip-mined areas in Alabama, and a coal preparation facility and coal-ash storage ponds in Tennessee into clean water.

Since livestock operations contribute significant pollutants to Valley streams, TVA plans to develop an inexpensive system to demonstrate practical applications to livestock producers. TVA hopes to initiate similar demonstrations for small, troubled industries and failing home septic tanks during fiscal year 1988. Of course, continued operation and monitoring of existing systems is crucial to developing design guidelines and operating recommendations.

TVA has been the exclusive Federal agency involved in the development of the projects we currently have under way. However, the Environmental Protection Agency, the Office of Surface Mining, and a private utility have expressed interest in sharing TVA monitoring costs. Other Federal agencies studying these problems or related activities include some mining research by the Bureau of Mines, limited mine and municipal research by universities, and small scale testing by NASA. Only TVA has attempted to apply these innovative approaches across such as broad spectrum; understand operable mechanisms; and develop practical design, construction, and operating guidelines.

Under the proposed fiscal year 1988 budget, all of this work would be eliminated. Operation, maintenance, and evaluation of these current and proposed projects would require about $960,000 in 1988, $700,000 in 1989, and $700,000 in 1990.

Stafford

5. Question: Please describe the purpose and proposed operating schedule for the 10 dewatering areas adjoining the main reservoir system.

Answer: TVA operates some 18,000 acres in 10 dewatering areas. These areas provide key habitat for overwintering more than 50 percent of the total winter waterfowl populations of Alabama and Tennessee, which coincidentally have enjoyed a 50-fold increase since the inception of the reservoir projects. They also furnish habitat for more than 100 species of other migratory birds, some of which are rare, threatened, or endangared such as bald and golden eagles, ospreys, peregrine falcons, and sandhill cranes. Annually, they support some 30,000 waterfowl hunting trips and 960,000 other visits by outdoor enthusiasts. They also support over 200,000 use-days of commercial and recreational fishing annually. Some 10 miles of highway and railroad embankments which cross these sites are protected, and 3,800 acres of land which would otherwise be flooded is made available for prime agricultural purposes. An additional 2,000 acres of land provides natural food plants for waterfowl. About 5,000 acres of commercially valuable bottomland forests, that would otherwise be killed by standing water conditions during the annual growing season, is protected. The operation of these areas also helps control mosquito populations, including disease vectors.

Specific operating schedules vary among the 10 units, but they are generally pumped dry (dewatered) during the spring, summer, and early fall to protect tree growth, allow crop production, and inhibit mosquito growth. In late fall, the units are allowed to reflood, providing excellent wintering habitat and food for migratory waterfowl and other wildlife.

These dewatering areas are operated cooperatively with the U.S. Fish and Wildlife Service and the States of Alabama and Tennessee.

2/6/87—1430D (0450D)

Stafford

6. Question: Does TVA anticipate that any of the locks in the navigation system will need to be upgraded or receive major rehabilitation in the foreseeable future? If so, please specify.

Answer: The three uppermost locks on the Tennessee River are substandard for modern commercial navigation and TVA is currently investigating the feasibility of replacing them. In addition, the most downstream lock on the river is approaching its practical capacity.

The locks at Chickamauga, Watts Bar, and Fort Loudoun Dams were all constructed in the early 1940s and are 60 feet wide by 360 feet long. The other locks on the main river are at least 110 feet wide by 600 feet long. The newest lock in the system, constructed at Pickwick Dam, is 110 feet wide by 1,000 feet long. Although there is no set national standard, the 110 feet wide by 600 feet long lock is considered a minimum for economical water transportation and today's equipment.

Public agencies, industries, and navigation interests have expressed concerns that the small locks impede economical transportation on the Tennessee River and hinder economic development. Waterborne commerce statistics show that less than 2 million tons annually move through Chickamauga lock while some 30 million tons move through Kentucky lock.

TVA recognizes the fact that these locks are small by modern standards and is working with the U.S. Army Corps of Engineers (USACE) on a joint study of the costs and benefits of upgrading the locks at Chickamauga, Watts Bar, and Fort Loudoun Dams.

Kentucky lock is a standard 110 by 600 foot lock. Because it is the most downstream lock in the system, Kentucky presently has the most traffic. The resultant congestion often causes delays of over four hours per tow. Presently, the Barkley Canal allows Cumberland River traffic to use the lower Tennessee River and Kentucky lock rather than the lower Cumberland River, which is narrower, longer, and more difficult to maneuver. The Barkley Canal adds 3 to 5 million tons of Cumberland River traffic annually to Kentucky lock. In addition, the Tennessee-Tombigbee Waterway which opened in 1985 has the potential to impact traffic at Kentucky lock.

TVA and USACE are jointly studying ways to relieve congestion at Kentucky lock. The two major alternatives being examined include building an additional lock at Kentucky or straightening and widening the bends in the lower Cumberland River below Barkley Dam.

TVA and USACE are also cooperating in a four-year project to make major repairs to the two-chamber auxiliary lock at Wilson Dam. Funds have been allocated in fiscal year 1987 for TVA to strengthen and lengthen the upper chamber. In fiscal year 1990 TVA will complete the installation of a fire protection system and replacement of a drainage flume. In the interim years USACE will refurbish gate and valve operating components and machinery, replace electrical fixtures and cables, and make concrete repairs to the lock walls. No other major lock repair projects are planned at this time.

Stafford

7. Question: In the Resource Management and Development Support account, why have mapping programs been selected for funding while other programs related to air quality, water quality, and solid waste been eliminated in your fiscal year 1988 request?

Answer: The President's budget requests funding for the Valley Mapping and Remote Sensing program at the level proposed by TVA. TVA mapping services provides input for the Valley region to the U.S. Geological Survey's National Mapping program. The resource management and development support budget also provides for reviews conducted to ensure that transactions involving the use of TVA land meet criteria specified in Section 26a of the TVA Act and our acidic deposition program, which is an integral part of the National Acid Precipitation Assessment Program (NAPAP). These priorities were established by the Administration in its passback to TVA.

Other ongoing activities were eliminated because they were characterized by OMB as the responsibility of other Federal, State, local, or private entities. They include the following.

- Air resource management activities, including a four-year Valley-wide indoor/outdoor toxic air assessment, technical assistance to regulatory agencies and industry in identifying and resolving air quality problems, and Valley-wide rural ambient air quality monitoring. These monitoring data are the only source in the southeastern United States for background levels of regulated pollutants used for research, regulation, and economic/industrial development. Three acidic deposition monitoring stations in the NAPAP national trend network have also been operated.

- Solid and hazardous waste, water supply, and wastewater activities including community and industrial assistance in materials recycling, energy from waste, wastewater and water supply; small industry hazardous waste management assistance; and water conservation leak detection.

TVA's rationale for continuing its work in these areas proposed for elimination is tied to the impacts these programs have on resources under TVA stewardship and the expertise and data available within TVA to find new solutions to the problems they generate. TVA has carried out each of these programs in cooperation with others, including Federal, State, and local agencies as well as the private sector. Results and data are regularly exchanged in order that the most efficient and effective ideas are expeditiously applied to air, water, and waste problems within the region and elsewhere across the Nation.

Stafford

8. Question: Please provide a detailed activity by activity breakdown of the Land Between The Lakes (LBL) budget since 1980. Please make it clear which ongoing programs, facilities, activities, etc., will not be funded under your fiscal year 1988 request.

Answer: On the basis of preliminary staff estimates of how to allocate the proposed reductions, LBL would close its North and South Welcome Stations, education and interpretive facilities (Youth Station, Empire Farm, Woodlands Nature Center, Homeplace-1850, and Golden Pond Visitor Center multimedia theater), and 16 nonfee lake access and day-use areas under the proposed budget. Education and interpretive programming would be eliminated, as would all wildlife and forest management demonstrations. The education and interpretive facilities that would be closed are those where operating expenses significantly exceed income.

If these facilities were closed, and activities and visitation reduced, the need for improved security and protection of visitors and property at LBL would increase. Property protection at LBL would therefore be moderately enhanced to allow for part-time operation of all entrance control stations to better monitor users and to provide information to the public. Motor patrols of roads and closed facilities would also need to be increased.

Even though $6.0 million is only $340,000 less than the fiscal year 1987 appropriation of $6.34 million, it is $1.32 million less than the fiscal year 1985 appropriation of $7.38 million.

Because of these cumulative budgetary restrictions, LBL has deferred a great deal of the maintenance of its facilities and has reduced staff since the early 1980s. We have now reached a point where facilities must either be fixed and adequately staffed or closed. If this is done, revenues generated at many LBL facilities would also be lost. The combined impact of these losses plus inflation is estimated at over $1 million.

In addition to the direct $340,000 reduction in LBL's appropriation for fiscal year 1988, inflation impacts are projected to be equivalent to about $320,000 in reduced purchasing power. Because of the cumulative effect of budget reductions in the past few years, there is no reasonable alternative except to close more facilities.

A table which displays funding for LBL activities from fiscal year 1980 through 1988 follows.

Land Between The Lakes
Obligations by Fiscal Year
(In thousands of dollars)

	1980 Actual	1981 Actual	1982 Actual	1983 Actual	1984 Actual	1985 Actual	1986 Actual	1987 Estimate	1988 President's Budget
Operating budget									
Wildlife management...........	370	327	361	420	622	658	688	632	616*
Fisheries management..........	151	104	102	134	160	167	83	40	43
Forest and open land management....................	570	496	470	608	513	578	656	686	694
Education.....................	456	583	465	549	615	674	419	355	22*
Interpretation................	737	646	577	957	1,142	1,146	955	893	140*
Outdoor recreation programs...	174	108	122	110	134	151	104	137	147
Family camping................	600	534	577	566	629	678	645	576	619
Group camping.................	553	637	545	694	656	720	757	664	713
Lake access and special use...	168	179	214	250	224	241	307	290	236*
Road maintenance..............	569	512	575	598	553	699	476	486	506
Maintenance support operations	784	617	781	693	889	959	1,140	1,032	1,122
Protective services...........	725	743	696	785	800	905	936	987	1,302
Public services and marketing.	376	332	595	707	669	809	1,274	1,122	1,050
Total obligations........	6,233	5,818	6,080	7,071	7,606	8,385	8,440	7,900	7,210
Less: Income.................	-744	-738	-822	-912	-881	-1,078	-1,443	-1,650	-1,310
Net appropriation........	5,489	5,080	5,258	6,159	6,725	7,307	6,997	6,250	5,900
Capital budget									
Obligations..................	1,544	1,282	1,770	290	202	75	73	90	100
Total appropriations.....	7,033	6,362	7,028	6,449	6,927	7,382	7,070	6,340	6,000

*These areas are reduced from our requested level.

Stafford

9. Question: Please describe in some detail the change in philosophy, funding, and emphasis associated with the implementation of the Agricultural Institute. As part of your answer, please describe how these changes will affect how TVA will cooperate with and fund the Agricultural Extension Service and area universities. Also please give examples of programs or projects which will serve to illustrate this new shift in TVA's agricultural programs.

Answer: During the past three years, funding for TVA's agricultural resources development has declined steadily —from $5.9 million in fiscal year 1984 to $4.0 million in fiscal year 1987. At the same time, fundamental and significant changes have occurred in agriculture. Reduced exports and depressed prices for agricultural products have caused farmers to look for alternative enterprises and to seek new technology to lower production costs and increase efficiency.

As a result of the funding situation and these important changes in agriculture, we called on 20 leading experts from a number of regional and national universities, agencies, private organizations and environmental groups to help reevaluate our program. These experts assisted in identifying the critical issues facing agriculture and recommended strategies for the TVA cooperative agricultural program in addressing these issues. A major recommendation was to establish an Agricultural Institute to plan and conduct a redirected agricultural resources development program.

The Institute concept enhances the administrative efficiency of the agricultural program within TVA by permitting a more cost-effective targeting of TVA staff. It also provides an identity outside TVA that we can use to help leverage the resources of other agencies and organizations into the cooperative program.

The Institute is conducting programs to improve farm income and to promote conservation and wise resource use. New activities are being introduced to target our resources to specific problems and opportunities.

Our current program thrusts are aimed at: (1) protecting the natural environment, (2) testing and introducing emerging technologies, (3) developing the fruit and vegetable industry and introducing other alternative enterprises, and (4) developing jobs and incomes in rural areas. A basic objective is to increase the contributions of agriculture to the rural economy.

Since its inception, the TVA agricultural resources development program has been conducted in partnership with the land-grant universities, USDA, and State and local organizations. Each partner has always contributed staff and financial resources into program activities. Such an arrangement has been very effective. The university extension services have an effective technology delivery system. We work in concert with that delivery system to avoid duplication and to eliminate the need for larger staffs to implement our programs.

We will continue to work closely with the universities. Funding for broad based programs, however, is being reduced in favor of more targeted approaches. About 50 percent of our program funding will be conducted through joint planning and program arrangements with the universities. Their financial and staff input into joint programs will equal, and in some cases exceed, TVA's input. About 25 percent of our funding will be allocated through a competitive bid process. The universities and other public and private organizations can bid on specific project activities under this process. The remaining funding will support our direct staff involvement in conducting cooperative programs.

The following examples illustrate the shift in emphasis of the Institute's programs.

Our recent work in developing the fruit and vegetable industry has led to the formation of a Federation of 16 vegetable cooperatives with 1400 members. The Federation furnishes critical supply and price information to member co-ops and helps pool supplies to meet buyers' needs. Eight newly organized fruit and vegetable cooperatives had sales of $4.5 million in 1986, and created 275 seasonal jobs and nine full-time jobs.

We are working with farmers, agribusiness firms, universities and others to develop alfalfa-sawdust pellet mills in the region. Alfalfa pellets are attractive to the horse industry and provide a new source of income from a high-value enterprise. Sawdust pellets offer clean-burning fuel for residential and light commercial industry uses. Combining the two pellet operations will provide year-round employment opportunities. Additional opportunities of this type will be pursued in the future.

A swine processing facility in northeast Mississippi slaughters 6,000 hogs a week, and most are imported from outside the region. We are working with the Mississippi extension service and local organizations to demonstrate swine production systems that could yield several million dollars of income to farmers in three States.

TVA and the extension services have helped create multi-million-dollar horticultural and ornamental crop enterprises in the eastern part of the Tennessee Valley. Cultural practices, including fertilizer use, have been introduced through demonstration farms to increase production and efficiency. We have also helped develop marketing systems for these enterprises.

The cooperative USDA/State/TVA/USEPA Land and Water 201 conservation program is being coordinated by TVA. This program is a national model of multiagency efforts to reduce soil erosion, improve water quality, and increase farm income. An innovative part of this program is Resource Management Conservation farm demonstrations. These demonstrations are designed to solve soil erosion problems while maintaining or improving net farm income. Seven farms in Alabama, for example, reduced soil erosion last year to acceptable levels and earned an average net farm income of $62,500—compared with $23,200 for other demonstration farms in north Alabama.

We have just started a pilot innovative technology demonstration farm program in cooperation with the extension service and the USDA Soil Conservation Service. This concept will demonstrate a systems approach to introducing the latest technology in pollution control, energy conservation and financial management.

The universities and their extension services are key partners in many of the Institute's programs. Additional innovative approaches are being studied and will be implemented as needs are identified and funding permits.

Stafford

10. Question: Understanding that dam safety work must proceed from the upper reaches of the reservoir system to the lower reaches, what are your projections for dam safety expenditures for the next five years? Please list separate estimates for the power and nonpower share of the anticipated projects.

Answer: TVA projects the cost of dam safety modifications to be:

	(In Thousands of Dollars)				
	1988	1989	1990	1991	1992
Appropriations.............	2,610	2,855	7,125	12,275	15,285
Power proceeds.............	2,596	4,467	3,875	6,725	8,965
Total funded..........	5,206	7,322	11,000	19,000	24,250

This schedule reflects the proportionately higher cost of modifications to mainstream dams as work is completed on tributary structures. Work in 1989 will commence on Fort Loudoun/Tellico and Melton Hill Dams. In 1990 work will start on Chickamauga and Watts Bar Dams, and in 1991 on Beech River and Nickajack Dams. Work on Kentucky and Guntersville Dams will start in 1992.

Stafford

11. Question: Are any capital improvements, necessary reconstruction, rehabilitation or maintenance to TVA dams, bridges, power plants, buildings, roads, etc., presently being deferred due to budgetary shortages? If so, what are they and what is the maximum amount of time that this work can be postponed? Please list specific projects and estimated costs.

Answer:

Delayed/Deferred Capital Improvements

Activity	Duration (Months)	($000) First-Year Cost	Total Cost
New projects			
New nitric acid facility	48	500	14,000

A new, modern-technology, 105 ton/day nitric production plant would be built to replace the old facility. The new unit would be appreciably more efficient and environmentally acceptable, and would allow TVA to expand its long-range emphasis on nitrogen-based fertilizers.

This plant can continue to be delayed, but the delay will force payment of ever-increasing maintenance and repair costs associated with the old unit and will restrict future development of nitrogen-based fertilizers.

Activity	Duration (Months)	($000) First-Year Cost	Total Cost
Mooring facilities	24	400	800

Construction of a sheet pile wall at the Wilson Dam fleet harbor to serve as a permanent berth accommodating storage and repair of floating equipment used for bridge and spillway gate maintenance.

This project may be postponed indefinitely; however, this will continue to require frequent and disruptive movement of equipment to accommodate loading and unloading chemical plant barges. Continued delay will also require separate action to control a growing erosion problem the new wall would otherwide remedy.

Activity	Duration (Months)	($000) First-Year Cost	Total Cost
Chemical storage facilities	12	75	150

Construction of modern chemical storage facilities at Guntersville, Wheeler, Pickwick, Chickamauga, Bear Creek, Kentucky, and Nickajack for the dispensing of herbicides used in the Aquatic Weed Control Program.

May be postponed indefinitely; however, continued postponements and use of existing methods and facilities increase the risk of accidental chemical spills.

Activity	Duration (Months)	($000) First-Year Cost	Total Cost
New projects (Continued)			
Equipment shelters	16	190	340
Construction of shelters ~~for~~ equipment at Bear Creek, Watts Bar, Hiwassee, Chickamauga, Nickajack, and Kentucky Dam Reservations and at Muscle Shoals and Big Sandy facilities. May be postponed indefinitely; however, continued lack of protection for expensive maintenance equipment results in poor equipment readiness, reduced equipment service life, and high maintenance costs.			
Inflammable materials storage buildings	16	85	150
Construction of special buildings for storage of inflammable materials at 15 dam reservation maintenance facilities. May be delayed indefinitely with the consequent increased risk of extensive property damage and difficulties in preserving employee safety from storage in existing structures. Alternatively, unprotected storage risks material losses due to weather and lack of security.			
Road and grounds maintenance equipment	6	150	150
Purchase of specialized equipment for hazardous road and grounds maintenance activities including roadway sweepers and slope mowing machines. May be delayed indefinitely with a consequent loss in employee efficiency because of added difficulties in preserving employee safety.			
Modifications/Rehabilitations			
Upgrade OACD solids handling facility	12	1,100	1,100
Modifications to upgrade our solids handling system at Fleet Harbor barge loading/unloading facilities have been deferred. The facility is used for loading and unloading solid fertilizer raw materials and products onto barges. Modification of facilities would consist of (1) undertrack unloading of hopper cars, (2) conveyor system to barges, and (3) telescopic loading chute to barges. While these modifications can be postponed indefinitely, operating costs will continue to increase due to downtime caused by increasing repairs, replacement parts becoming more expensive and harder to locate, demurrage of barges due to inefficient operation, and the potential environmental hazard of spillage.			

Activity	Duration (Months)	($000) First-Year Cost	($000) Total Cost
Modifications/Rehabilitations (Continued)			
Maintenance buildings........................	18	320	470
Replacement of maintenance buildings at Watts Bar and Hiwassee Dam Reservations and major modification of the maintenance building at Norris Dam Reservation. May be postponed indefinitely. The continued use of these facilities with their unheated work spaces, aging structures, and outdated designs results in increased operating costs and lowered employee efficiency.			
Handicapped accessibility....................	9	80	155
Modifications of visitor facilities to permit accessibility by the handicapped on six dam reservations and at eight reservoir recreation areas. If these facilities are to remain open, these activities may not be postponed without violating the requirements of law regarding handicapped accessibility.			
Sanitary facility improvements at recreation areas..	18	175	350
Construct seven restrooms and three waste disposal stations at eight reservoir recreation areas to properly serve current demand. This work could be postponed for two years.			
Other recreation area improvements............	18	70	155
Extend waterlines and complete other general work such as curbing, sidewalks, shoreline riprap, and paving at recreation areas. Some projects can be postponed for about three years. Some work is currently needed to reinforce aging facilities, control erosion, and reduce future operation and maintenance costs.			
Lake access areas at Land Between The Lakes (LBL).......................................	12	800	800
Rehabilitate three lake access areas and expand three additional areas to supplement LBL's existing fee camping network. These areas would be upgraded to modern standards.			
Campground development at LBL.................	24	500	1,000
Develop campgrounds at off-road vehicle area and Wranglers Camp to provide improved visitor services and allow fee collections at these heavily used areas.			

Activity	Duration (Months)	($000) First-Year Cost	($000) Total Cost
Modifications/Rehabilitations (Continued)			
Campground upgrades at LBL	24	500	1,000
Upgrade Hillman Ferry and Piney family campgrounds to better meet visitor needs, improve overall operating efficiencies, and increase visitation and use. Improvements include upgrade of electrical capabilities, testing of alternative camping styles, complete renovation, and addition of reservation systems. Deferral would result in the loss of potential revenues.			
Miscellaneous facility and equipment replacement	12	1,560	1,560
There are various items and small projects that require funding to sustain TVA's facilities. Miscellaneous facility and equipment replacement which has been deferred includes such items as: replacement of sandblasting facilities, a railcar puller for fluid fertilizer loading station, fertilizer samplers, a granular fertilizer screening system, the purchase of a five-ton lift truck for maintenance operation, laboratory instrumentation, work boats, dock facilities, field equipment, etc. While most of these items can be deferred indefinitely, the result is increased maintenance and a decline in safety.			
Maintenance			
Repaving	12	450	820
Repaving of roads and parking areas on eight dam reservations and six reservoir recreation areas. May be deferred indefinitely if existing maintenance funds are used to patch or selectively pave failed areas of worn pavement. The long-range cost of this program will far exceed the cost of timely maintenance, and the average serviceability of these areas will continue to decline.			
Visitor buildings	18	90	200
Maintenance to visitor buildings including repair and replacement of items having a finite service life, such as roofs, flooring, paint, fixtures, etc., on seven dam reservations and at three reservoir recreation areas. May be postponed indefinitely if present level of maintenance funding is used exclusively for "stop gap" temporary remedies, giving the highest priority to health-, safety-, and sanitation-related activities.			

Activity	Duration (Months)	($000) First-Year Cost	($000) Total Cost
Maintenance (Continued)			
Other visitor facilities......................	18	90	200
Maintenance to visitor facilities other than buildings, such as walks, fishing berms, courtesy piers, beaches, etc., at various dam reservations and reservoir recreation areas. May be postponed indefinitely if present level of funding is used exclusively for emergency corrections of health, safety, and sanitation problems. However, the material condition, and, consequently, the appearance of these popular and highly visible facilities will continue to worsen.			
Grounds.....................................	18	120	200
Maintenance of grounds including roadway appurtenances (i.e., guardrail, lighting, drainage, etc.) at various dam reservations and reservoir recreation areas. May be deferred indefinitely; however, the costs associated with correction of the resulting damage, though proportional to the length of postponement, will far exceed that of timely maintenance.			
Storage and equipment repair facilities.......	9	45	80
Maintenance to existing storage and equipment repair facilities at Guntersville, Muscle Shoals, and Big Sandy. May be postponed indefinitely if the present level of maintenance funding is used for "stopgap" remedies.			
Campgrounds at LBL..........................	12	600	600
Family campgrounds require renovation or replacement of water and sewerage systems, rehabilitation of toilet/shower buildings, upgrading of electrical outlets for campers, and improvements to beach and water access facilities. Visitation has declined and one campground has been closed due to deficiencies. Deferral cannot continue for more than two years.			
Education and interpretive facilities at LBL..	12	350	350
Replace roofs, porches, and siding as well as interior and exterior painting. Maximum time of deferral is one year.			

Activity	Duration (Months)	($000) First-Year Cost	($000) Total Cost
Maintenance (Continued)			
Visitor centers and administrative offices at LBL Perform need exterior repairs, new roofs, and carpet replacement. In some cases rain water has severely damaged the roofs and has caused exterior siding to deteriorate and sag. Maximum time of continued deferral is two years.	12	290	290
Roads at LBL Repaving (50 miles) and stripping (75 miles); drainage structures and ditches need repair; and severe erosion along road slopes must be corrected. Bridges along major arteries of travel need to be replaced.	12	620	620
Habitat improvements at LBL Wildlife seedings, plantings, and cultivation are urgently need to be increased to ensure adequate wildlife populations and growth, and to prevent open lands from reverting to forests. Deferral of more than 2 years will impact the wildlife resource base that has been developed over the past 20 years.	24	150	300
Other recreation facilities at LBL General and preventive maintenance and repairs including replacement of picnic tables and campfire grills, repairs to boat ramps and beaches, and general painting and cleanup. Depending on the particular item one to three years is the maximum time for continued deferral.	36	500	1,000
Bridge painting Restart bridge painting and complete unexpected bridge structural support repair at Kentucky Dam. May be delayed up to one year, after which additional costs to complete the structural repair work and relocate equipment would increase the costs by 50 percent or more. Continued delay also disrupts the overall 15-year bridge maintenance schedule for the reservoir system.	12	114	114

Stafford

12. Question: Please give a project-by-project breakdown with budgeted amounts for TVA power research and development work.

Answer: Fiscal year 1988 research and development activity estimates:

Atmospheric Fluidized-Bed Combustion (AFBC) Technology	$13,000,000
AFBC 20-MW pilot plant	
AFBC 160-MW demonstration plant	
Fossil R&D Projects	$ 7,800,000
10-MW spray dryer/ESP pilot plant	
Fossil plant system instrumentation and diagnostics	
Waste disposal technology	
Advanced generating concepts - solid oxide fuel cells	
Nuclear R&D Projects	$ 6,500,000
Advanced reactor evaluations	
Plant life extension	
Light water reactor (LWR), safety, materials, & water chemistry	
Sensor development	
System & operation technology improvements	
Decontamination & waste handling	
Electrical, End Use, & Conservation	$ 8,000,000
Transmission, distribution, & electrical equipment	
Diagnostics & instrumentation	
Fiber optics & applications	
Conservation & end use projects	
Electrotechnology	
Electric vehicles	
Power electronic applications center	
Environmental Fate & Effects	$ 3,000,000
External Memberships - R&D Related	$23,700,000
Electric Power Research Institute (EPRI)	
Other	

Stafford

13. Question: Based on percentage of sales, how does TVA's energy research and development expenditures compare with other utilities in the U.S? For comparison purposes you may wish to use the utilities listed on page 41 of your Budget Program—the "Blue Book.")

Answer: Based on an overall view of the utility industry, the historical average expenditure by the industry is approximately 0.65 percent of sales revenues. Expenditures for individual utilities will vary from year to year based on the magnitude of the undertaking and the aggressiveness of the company toward Research and Development (R&D). TVA historically averages approximately 1 to 1.1 percent of revenues for R&D.

Listed below are the percentages of selected utilities.

Company	1984 R&D % of Revenue	1984 R&D Expenditures	1985 R&D % of Revenue	1985 R&D Expenditures
Ohio Power.......	0.18	$2,756,117	0.18	$2,422,061
Arkansas P&L.....	0.18	2,305,506	0.32	4,100,082
Detroit Ed.......	0.28	6,549,123	*	*
Ky. Utilities....	0.33	1,728,925	0.36	1,912,382
Miss. Power......	0.35	1,479,894	0.46	2,031,128
Carolina P&L.....	0.38	7,128,907	0.49	9,247,535
Portland GE	0.40	2,872,963	*	*
Union Elec.......	0.48	6,181,684	0.48	7,102,645
Va. E&P..........	0.51	12,635,340	0.64	16,396,698
Ill. Power.......	0.52	4,216,804	0.60	4,609,016
Ga. Power........	0.59	13,574,481	0.55	18,886,259
Duke Power.......	0.61	16,670,773	0.68	19,577,920
Common. Edison...	0.61	29,999,610	0.70	34,433,644
Consol. Edison...	0.61	28,329,564	*	*
Southern Ca. Ed..	*	*	0.88	48,400,000
TVA..............	0.93	41,666,453	1.16	52,105,649

*Figures not available for these years.

Stafford

14. Question: Please describe how your assumptions about bringing various nuclear generating units back online effect your power budget estimates.

Answer: Bringing back on line various nuclear generating units affects the budget estimates by changing generation mixture, fuel expenses, operations and maintenance expenses, and depreciation expense. For fiscal year 1987 nuclear plant generation was estimated to be about 9.5 billion kilowatthours for purposes of establishing operating budget estimates. It now appears that nuclear generation will be less than this amount, but no rate adjustment is currently being contemplated for fiscal year 1987. Operating budgets for fiscal year 1988 will be established during the coming summer on the basis of information available at that time.

Stafford

15. Question: You have estimated that over 400 employees will have to be dismissed as a result of the reduction in budget proposed for Fiscal Year 1988. Please provide a specific breakdown of this number: which programs they will come from; how many are professional as opposed to clerical; how many are managerial, etc.

Answer: The following table details the projected reduction of 422 TVA employees in fiscal year 1988.

TENNESSEE VALLEY AUTHORITY
IMPACT OF FISCAL YEAR 1988 PRESIDENT'S BUDGET
EMPLOYEE REDUCTIONS BY PROGRAM

	Management	Professional	Clerical	Trades and Labor
Natural resources...........	42	132	59	5
Economic resources..........	39	51	29	-
Agricultural Institute......	-	2	1	-
National fertilizer dev.....	5	24	8	25
Total reductions.......	86	209	97	30

(0450D)

Stafford

16. **Question**: Please provide a chart indicating the annual amount of reimbursable services TVA has performed for the past ten years. Please provide some detail about the composition of each annual number (for example, how much was for other government agencies, how much for foreign governments, etc.). Also, if there are any long term trends that have occurred or are occurring with rgard to TVA's reimbursables services, please describe them. In addition, please provide a detailed breakdown of reimbursable work which you expect in Fiscal Year 1988.

Answer: The attached tables provide the information requested.

Table 1 - Tennessee Valley Authority
Reimbursable Services by Years (1977-1986)

Table 2 - Tennessee Valley Authority
Reimbursable Services
Estimates by Activity for Fiscal Year 1988

Table 1

TENNESSEE VALLEY AUTHORITY

Reimbursable Services by Years
(In thousands of dollars)

Fiscal Year	Dept. of the Army	Dept. of Agric.	DOE[1]	EPA[2]	Dept. of Commerce	Defense Mapping Agency	Project Management Corporation[3]	Back Charges to Contractors[4]	Misc.	Total
1977	340	407	–	7,516	707	616	1,711	11,914	8,293	31,506
1978	206	416	–	6,535	–	347	1,116	8,574	10,140	27,335
1979	208	551	–	6,166	–	425	1,109	1,298	11,161	20,918
1980	189	625	–	6,509	–	510	1,295	4,856	15,920	29,904
1981	236	677	–	3,623	–	511	1,387	-16,482	14,362	4,314
1982	218	625	10	1,712	–	801	2,698	2,635	13,442	22,141
1983	1,327	468	1,475	890	–	945	2,583	1,923	21,380	30,991
1984	1,622	445	2,896	706	–	1,048	1,050	1,786	25,016	34,569
1985	375	480	5,070	520	–	1,624	100	916	28,617	37,702
1986	2,341	284	28,489	128	–	1,037	3	281	38,063	70,626

1. Increase since 1982 reflects primarily AFBC demonstration activities.

2. Decrease since 1977 results from a reduction fo coal-fired gaseous emission control research.

3. Decrease since 1982 results from a termination of the development of the liquid metal fast breeder reactor.

4. While these costs reflect both increases and decreases, the reduction since 1982 reflects primarily less construction activities on TVA's nuclear generating plants.

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Table 2

TENNESSEE VALLEY AUTHORITY

Reimbursable Services by Activities for
Fiscal Year 1988
(In thousands of dollars)

	1988 Estimate
Mapping services for Defense Mapping Agency and other Federal, State, and local agencies........	1,050
Energy and environmental research in cooperation with EPA..................................	266
Cooperative project with USDA..	400
Navigation improvements to the Tennessee River waterway in cooperation with the U.S. Army Corps of Engineers..	700
Foreign fertilizer development assistance in cooperation with AID and IFDC.....................	320
Water quality sampling, secondary channel marking, and recreation trail development activities for the Army Corps of Engineers..	650
Services provided to U.S. Department of the Army for possible use of the phosphate development works at Muscle Shoals, Alabama..	878
Fertilizer income from private sources..	2,000
Research services for the Department of Energy..	1,730
Cooperative projects which are partially funded by the EPRI..................................	27,122
Services furnished the Office of Surface Mining..	539
Biomass research services for AID and DOE..	2,035
Flood hazard information for the Federal Emergency Management Agency.........................	472
Cooperative development and construction of the AFBC project at Shawnee.......................	7,000
Services furnished AID..	430
Technical advisory services to power distributors...	715
Financial and accounting services to TVA Retirement System..................................	1,070
Services furnished vendors and contractors..	600
Other reimbursements..	4,551
Total..	52,528

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Stafford

17. Question: Please state what sums, if any, are included in the budget submission for compliance with an acid rain control program similar to S. 300, S. 321, or other legislative proposals. If no such sums are included, please provide a statement of what funding would be necessary or desirable for fiscal year 1988 for the implementation of such a program, recognizing that the bulk of such costs would be borne by TVA's ratepayers and thus not included in the budget presented to this committee.

Answer: TVA has not included any sums in the fiscal year 1988 budget submission specifically designated for compliance with acid rain legislation. However, TVA has been evaluating the potential effects of the various major acid rain control legislative proposals following their introduction and has a general idea of what those proposals would require of TVA. Additionally, we have recently completed an analysis of various control options in cooperation with EPA, Tennessee, Kentucky, and Alabama. One such scenario was a 12-million-ton reduction similar to S. 300 and S. 321. If specific legislation were passed, TVA would have to initiate more site specific engineering and more detailed economic evaluations to better define the most cost-effective compliance strategy for each of its plants. In addition, commencement of the equipment purchase requisitions would have to begin in 1988. The cost for these evaluation, engineering, and requisition activities could approach $15 million in 1988 and would come from generated revenues. In addition, in our technology development work on AFBC and spray drying, we are proposing $18 million in fiscal year 1988 for continued efforts in these areas.

Stafford

18. Question: Could TVA staff please prepare for the Committee's use a summary and description of the technologies available for control of sulfur dioxide and oxides of nitrogen from fossil-fuel-fired electric generating plants. If possible, the description should include the removal efficiency; the cost per ton of pollutant removed; the cost per kilowatt hour; the degree to which the technology has been demonstrated on a commercial or other scale (whether in the United States or elsewhere); the degree to which the technology is effective in removing other pollutants, including carbon dioxide (and please include a statement of whether the technology affects CO_2 emissions); the time by which the technology will become commercially available; and other information which you may consider relevant and appropriate.

Answer: The attached table summarizes the SO_x and NO_x control technologies that are commercially available or are under development. Limestone, lime, dual alkali, and promoted limestone flue gas desulfurization (FGD) technologies are commercially available for use in the U.S.

The lime spray dryer FGD process is in commercial operation on low-sulfur coal in the U.S. and Europe, and lime spray dryer process tests on high-sulfur U.S. coal at the pilot-plant scale have been successful. The LIMB (limestone injection multiple burners) SO_x control technology has been tested for a number of years, and a commercial demonstration is scheduled for operation at Ohio Edison in 1988.

The circulating fluid-bed (CFB) SO_x absorption process is in commercial operation on low-sulfur coal in Germany. A CFB unit will begin operation in Germany on high-sulfur coal in late 1987. CFB tests on high-sulfur U.S. coals, however, will be required before the CFB process can be widely used in this country. The AFBC technology will be demonstrated on U.S. coals over the next several years and should be ready for commercialization by 1994. Coal-cleaning technology is commercially available.

Two kinds of NO_x control technologies exist: (1) combustion modifications in conventional pulverized-coal boilers, and (2) the selected catalytic reduction (SCR) process for post-combustion flue gas treatment in cyclone-fired boilers. With regard to the first, the staged combustion technology is commercially available in the U.S. Advanced burners are still under development and possibly could be demonstrated on a commercial scale by 1992. Combustion modifications for NO_x control in cyclone-fired boilers are probably technically unfeasible.

With regard to the second, the SCR process is in commercial operation on low-sulfur fuels in Germany and Japan. SCR process development on higher sulfur coals, possibly could lead to commercial application in the late 1990s.

With the exception of particulates, the available control technologies are not effective in removing other pollutants, such as CO_2. In fact, all of the available SO_x and NO_x control technologies cause a decrease in the operating efficiency of conventional coal-fired boilers. This results in an increase in the amount of coal burned with a corresponding increase in CO_2 emissions.

SO_x and NO_x CONTROL TECHNOLOGIES

Technology	Removal Efficiency	\$/Ton* Removed	Commercialization**	100% Commercial (Yrs)	Other Pollutant Removal
SO_x Control					
a. Limestone............	80-90	500-700	yes	—	none
b. Lime..................	95+	500-700	yes	—	none
c. Dual alkali...........	95	500-700	yes	—	none
d. Promoted (advanced) limestone............	90-95	500-700	yes	—	none
e. Spray dryer...........	70-80	400-600	no	1993	none
f. Circulating bed.......	90-95	?	no	1994	none
g. Limb..................	30	700-1100	no	1992	none
h. AFBC..................	90	—	no	1994	NO_x (50%) ash
i. Coal cleaning.........	30-40	200-300	yes	—	
NO_x Control					
a. Combustion modification					
o Staged burners......	30-40	100	yes	—	none
o Advanced burners....	40-60	100-150	—	1992	none
o Cyclone............	40-60	?	no	unknown	none
b. Selected catalytic reduction............	70-90	5000-8000	no	1995-1997	none

*Costs are based on retrofitting controls on high-use, base load power plants. For low-use peaking units, costs could be substantially higher. For similar reasons dealing with specific plant operations, a cost per kWh is not a representative measure. Also, in some instances the physical restraints of an existing plant could prove retrofit of a technology to be technically unfeasible.

**Assumes commercialization for 2.0-4.5 percent sulfur, 10-15 percent ash, 10,000-12,000 Btu/lb coals.

1437a (0468D)

Question: TVA includes among its nonpower activities several air and water quality monitoring efforts, environmental cleanup initiatives, new technology assessments, and environmental management prescriptions. Isn't TVA duplicative of Environmental Protection Agency and other Federal agencies' responsibilities and research? Aren't the States primarily responsible for setting and monitoring compliance to air and water quality standards within their boundaries?

Answer: One of Congress' central purposes in establishing TVA was to create an agency which could plan for and assist in the development of all resources in the multi-State Tennessee Valley region. Consequently, TVA performs for the Tennessee Valley region many of the same functions that the U.S. Army Corps of Engineers and the Bureau of Reclamation perform for their reservoirs.

The TVA reservoir system was designed to provide for a multitude of beneficial uses essential to progress in the region. When these beneficial uses are precluded because of pollution, the public expects and demands that the problem be corrected in a timely manner. Water quality in the TVA system is deteriorating at an accelerated rate due to increasing development and the natural process of lake aging. These changes can be slowed down or reversed, but this requires increased vigilance in monitoring water quality conditions in all the large TVA reservoirs and providing the information in a useful form to either those causing the problems or to the regulatory agencies responsible for bringing about corrective action. It is the inherent responsibility of an agency such as TVA, which brought large-scale physical changes to the Valley by replacing significant land areas with surface waters, to make these facilities work to the region's and the Nation's benefit. Also, since TVA controls the flow through the system it is in the best position to monitor the dynamic biological and physical changes occurring over time. The regulated Tennessee River flows across State lines and behaves as an integrated water resource so that no single-purpose State effort will lead to cost-effective protection of water quality.

The Valley States are responsible for setting standards and monitoring compliance of discharges. TVA works within this framework to bring about solutions to water quality problems in the reservoir system. TVA monitoring of the reservoirs identifies water quality problem areas and sources of pollutants, and this information is turned over to the Valley States which have the regulatory authority to require compliance with standards.

Most of the water quality monitoring by the States is performed close to pollutant dischargers to evaluate compliance with regulatory requirements. TVA monitoring is broader in perspective, covering the overall health of the watershed and reservoir system to identify trends and potential problems before they get out of hand and close down water supplies and recreation use of the reservoirs. TVA monitoring also provides data to evaluate the suitability of water for industrial development at many locations. All of TVA's monitoring is closely coordinated with the States and other Federal agencies to avoid any duplication of effort and to share monitoring results.

TVA environmental cleanup initiatives are conducted in response to pollution problems that impair or threaten the beneficial use of the reservoir system. Cleanup initiatives are conducted in partnership with other Federal agencies, Valley States, and local landowners. For example, when sewage sludge floated to the surface of Boone Reservoir, TVA and the State of Tennessee worked together to identify the source of contamination and to guide the city of Bristol in removing sludge deposits. As the broad scope of pollution problems on Boone Lake became clear, the State asked TVA to develop a water quality management plan for the reservoir to identify nonpoint sources of pollution, guide regulatory decisions, and provide a long-range plan for managing reservoir water quality and protecting beneficial uses. During the planning process animal waste was identified as a major source of bacteria to the reservoir. Since agriculture is excluded from regulation under Tennessee water pollution control authorities, TVA secured the help of the U.S. Soil Conservation Service and the Agricultural Stabilization and Conservation Service in conducting farm demonstrations for controlling animal waste runoff. Through a partnership approach water quality problems that prevent full use of Boone Reservoir are being addressed with no duplication of effort and a sharing of resources and responsibilities.

Through its Regional Air Quality Management program, TVA operates and maintains an air quality trend monitoring network which provides information on the background levels of air pollution available nowhere else in the Tennessee Valley or southeastern United States. The trend monitoring stations are located in remote, rural areas and support and augment the monitoring activities of the Environmental Protection Agency and State and local programs which primarily monitor in urban areas. Data from the network is also used by research organizations and by State and local regulatory agencies and the network is part of the National Trend Network which provides information on acidic deposition.

TVA also operates monitoring stations under cooperative agreements with Federal, State, and local agencies which combine resources to obtain monitoring data to meet both common and diverse needs of the participants in a cost-effective manner. These cooperative efforts help avoid the significant costs of operating individual monitoring stations by each of the agencies.

Through its Regional Air Quality Management Program, TVA also provides technical advice and support to communities and development agencies in formulating development plans that incorporate good air resource management principles. It provides technical advice and assistance to development agencies and industries on the air quality aspects of locating and expanding facilities in the Valley. TVA's activities serve as a model to develop and demonstrate programs and plans for protecting air quality, while optimally utilizing the air resource for economic growth, which can be applied elsewhere in the country. With its environmental data base and technical resources, TVA assists State and local air quality control agencies in identifying air quality problems and developing plans to correct problems. Through this program, TVA also fulfills its air quality related responsibilities associated with activities involving lands under its control and other actions which must be reviewed in accordance with the National Environmental Policy Act.

As with its trend monitoring network, TVA programs are developed in a manner that does not duplicate, but which augments and enhances Federal, State, and local efforts and which seeks to develop and demonstrate innovative and effective new methods for integrated management of natural resources.

Stafford (E&PW)

1. Question: Please provide the following information with respect to TVA's efforts to improve the quality of water from its dams. Please list and describe all reservoir releases improvements work and associated costs that have or will have been performed by the end of fiscal year 1987.

Answer: Manmade impoundments, like natural lakes, affect water quality. It is the natural tendency of deep bodies of water to stratify during the summer and for chemical and physical conditions to naturally occur in the lower levels that are adverse to water quality. As a consequence, releases from the deeper waters of a reservoir, for purposes such as hydroelectric generation, tend to be low in oxygen through much of the summer and early fall. A number of devices have been examined through the years to improve releases. Starting in the 1980s TVA in earnest began to explore release improvements for use in the entire TVA system. TVA is currently preparing its fourth report on TVA's program to identify and evaluate promising techniques to improve reservoir releases. The improvement work for each project is listed below.

1. Douglas Project - Three high-volume, low-speed axial pumps are being installed in Douglas Reservoir just upstream from the turbine intakes of unit 4. The purpose of the pumps is to force oxygenated surface water into the turbine intake flow when the reservoir is thermally stratified. One of the dam's large spillway sluices is being modified to provide a continuous minimum flow.

2. Norris Project - Hub baffles are installed each year on the hubs of both turbines. The baffles increase air flow from the existing turbine aeration systems over the full range of operations and thus increase the dissolved oxygen of the water being released downstream. A 400-foot-long, 5-foot-high reregulating weir has been built in the Clinch River about 2 miles below Norris Dam. This weir, in combination with turbine pulses, is being used to sustain a minimum flow in the Clinch River. Trout food organisms have been transplanted into the Clinch River from other Valley streams to try to accelerate the recovery process. Increased fishing pressure has produced a need to provide timely information about flow conditions. This is being done through use of a computer-activated voice synthesizer which provides continuous information by phone on the daily schedule of water released from Norris Dam.

3. South Holston Dam - An air compressor was operated for three years on the single turbine at the dam to improve dissolved oxygen levels. During the evaluation of the compressor, it was observed that the turbine was taking up relatively large quantities of air through the existing aeration system over much of the unit's operating range. This inherent ability to aspirate air was used by admitting air through an additional hole in the headcover and by blocking open a vacuum breaker

valve. In the normal operating range, this alternative gave results comparable to those obtained with use of the compressor.

4. Tellico Project - Provisions have been made to release cold water from Tellico Dam into the mouth of the Little Tennessee River to help provide a refuge for striped bass. A siphon discharges cool water over the dam into an area of Watts Bar Reservoir. The cold water flows along the bottom of the embayment and backs up behind an underwater barrier dam constructed near the mouth of the river. The refuge consists of the deeper cool water behind the barrier dam.

5. Tims Ford Project - A large air compressor has been installed at the dam to aerate discharges during the period each year when dissolved oxygen levels decline to low levels. A small hydropower addition has also been installed for use in sustaining a minimum flow. The small unit operates about 75 percent of the time whenever the larger unit is not operating.

6. Upper Bear Creek Project - A reservoir aeration system has been installed in the reservoir. It will aerate the full column of water near the dam. It is anticipated that the heavy concentrations of iron and manganese in the water will oxidize and precipitate out of solution. This process will reduce the large amounts of iron and manganese being released downstream.

Additional work has been undertaken at these and other projects to test the feasibility of other improvement methods. Also, TVA has investigated the effects of various dissolved oxygen levels on fish.

The associated costs that have or will have been incurred by the end of fiscal year 1987 are:

	Annual Costs (Obligations, $000)	
Year	Expense[a]	Capital
1981	830	
1982	1,233	475
1983	1,142	550
1984	1,480	908
1985	1,347	868
1986	1,407	857[b]
1987	1,338	454

a. Includes 26 percent funded with power proceeds.
b. From 1986 on, includes funding with power proceeds, the percentage of which varies depending on the project involved.

Stafford (E&PW)

2. Question: Please list the reservoir releases improvement work and associated costs you have requested for fiscal year 1988.

Answer: Funds requested for 1988 will provide for the following projects.

- The air blower at Tims Ford Dam will be operated to increase dissolved oxygen levels. Cavitation damage to the turbine will be repaired as needed. The Elk River will be monitored to assess its recovery as a consequence of providing for minimum flows from a small hydropower addition and from improved dissolved oxygen levels.

- Hub baffles will be installed on both turbines at Norris Dam and operated to increase dissolved oxygen levels. Cavitation damage to both turbines will be repaired. The reregulating weir will be operated to provide minimum flows. Surveys will be conducted to obtain information on the nature of aquatic life and the amount of fishing taking place. Catchable trout provided by the State will be distributed in the river.

- A siphon in top of one of the spillway gates at Tellico Dam will be operated for low flows to help support a summer refuge for striped bass that has been created behind an underwater barrier downstream from the dam.

- Three pumps in Douglas Reservoir will be operated to improve dissolved oxygen levels in the releases from Unit 4. Three additional sets of pumps will be installed in the reservoir in front of the other units. A large modified sluice will be operated to provide a minimum flow into the French Broad River below the dam. Surveys will be conducted to obtain information of the impact of the improved condition of sauger.

- A modified vacuum breaker system at South Holston Dam will be operated to aerate releases from the turbine during the period when dissolved oxygen levels are low.

- The reservoir aeration system in Upper Bear Creek Reservoir will be operated to reduce deposits of iron oxide and manganese oxide in the reaches below the dam.

- Work will begin on modifying one of the large spillway sluice gates in Cherokee Dam to enable it to be used to provide minimum flows. Work will also begin on the design of a set of high-volume, low-speed axial pumps for installation in Cherokee Reservoir.

Estimated operating costs for the work previously described and for assessing the impacts of these projects for fiscal year 1988 is about $1,500,000. The capital improvements described for Douglas and Cherokee would cost about $600,000.

Stafford (E&PW)

3. Question: Are the projects completed to date performing as originally expected? Please provide data showing the performance of these modifications.

Answer: The projects completed to date are performing as originally expected. Tables 1 and 2 provide data showing the performance of these modifications. The performance of the devices in the Douglas and the Upper Bear Creek projects will be assessed in fiscal year 1987.

Table 1
Dissolved Oxygen Improvement

Project	Average Number of Days Per Year Dissolved Oxygen Concentration in Releases Are Less Than The Selected Levels (milligrams/liter)				
	6	5	4	3	1
South Holston:					
Prior to improvements.......	72	53	35	26	2
After improvements..........	47	36	8	1	0
Norris:					
Prior to improvements.......	131	100	84	55	9
After improvements..........	55	29	4	0	0
Tims Ford:					
Prior to improvements.......	183	160	124	95	0
After improvements..........	183	130	35	0	0

Table 2
Minimum Instream Flows

Project	Flow Rate (cfs)
Norris:	
Prior to improvements............................	50
After improvements...............................	200
Tims Ford:	
Prior to improvements............................	20
After improvements...............................	95
Tellico:	
Prior to improvements............................	0
After improvements...............................	8

Stafford (E&PW)

4. Question: Does this type of work have the potential to make a significant improvement in the dissolved oxygen levels in your reservoirs? If so, how much? If not, why not?

Answer: With the techniques being developed by TVA, significant improvements in dissolved oxygen levels can be achieved. TVA has identified seven reservoirs experiencing low dissolved oxygen levels that could be improved by aeration at upstream dams. In other reservoirs, improved oxygen levels could be attained by in-reservoir aeration or by further reductions of pollutant loads and the reversal of the lake aging processes. TVA's objective is to sustain an improved level of dissolved oxygen in the reservoirs where it is cost effective. This can be achieved with the techniques being developed and will be a significant improvement in many instances.

5. Question: What are other ways to improve the dissolved oxygen levels of the reservoirs and how cost-effective are they compared to modification of hydropower facilities and operations?

Answer: Oxygen injection systems can be used to aerate reservoirs. They are costly to install and operate. The alternatives TVA employs are more cost-effective for sustaining dissolved oxygen levels in releases up to about 4 mg/l. Oxygen injection systems, however, would be needed to sustain levels around 6 mg/l.

Stafford (E&PW)

6. Question: At how many more dams is this work possible? What would be the cost of performing this work at these dams? How much do you propose to budget for this work and when? Is the schedule of this work heavily budget dependent--i.e., if more money was available, could this work proceed more rapidly? Does the power program pay for any of this work? If not, why not?

Answer: Enhancement of dissolved oxygen could be provided below 19 dams. TVA is making efforts to increase the concentration of dissolved oxygen below its dams. Analyses indicate that improvements in dissolved oxygen beyond those TVA is already working toward could be achieved in the TVA system for initial expenditures totaling about $21 million and subsequent annual expenditures for operation and maintenance of $5-$6 million. This converts to an equivalent annual expenditure of $7-$8 million (8.625 percent discount rate).

Similarly, instantaneous minimum flows below 11 dams could be sustained for initial expenditures of about $3 million. These rates would be the minimum average flow provided for any one day over a 20-year period for Tennessee dams and the minimum average daily flow during any seven-day period for 10 years at all projects except Norris and Tims Ford. The flows shown for these later two units are those currently being sustained. Subsequent annual costs would include losses in the value of power produced. A current estimate of power losses is not available, but losses would be substantial.

This work is heavily dependent on the available budget. The more money available, the faster these projects can be implemented. Work will be scheduled as funding permits. The power program pays 26 percent of operating costs and from zero to 40 percent of the cost of modifications, depending on the percentage of the initial cost of the project that was allocated to the benefit of the power program.

Table 1

RESERVOIR RELEASES IMPROVEMENT

Estimated Equivalent Annual Cost of Providing Enhanced
Dissolved Oxygen in Releases from TVA Dams[1]
(In millions of dollars)

Project	Dissolved Oxygen Concentration[2]		
	4 mg/l	5 mg/l[3]	5 or 6 mg/l
Blue Ridge	0.14	0.15	0.16
Boone/Fort Patrick Henry	0.18	0.28	0.45
Chatuge	0.15	0.27	0.28
Cherokee	0.90	1.30	1.30
Douglas	0.90	1.30	1.30
Fontana	-	-	0.45
Fort Loudoun	0.20	0.45	0.45
Hiwassee/Apalachia	-	0.30	0.40
Norris	0.30	0.60	0.85
Nottely	0.15	0.28	0.40
South Holston	-	0.15	0.45
Tims Ford	0.20	0.25	0.53
Upper Bear	0.10	0.10	0.10
Watauga	0.14	0.15	0.16
Watts Bar	0.21	0.57	0.57
Wheeler/Wilson	0.22	0.69	0.69
Total	3.79	5.82	7.52

1. Estimated costs are in 1986 dollars and are the total costs, including initial costs, required to sustain each level. The discount rate used was 8.625 percent and the assumed economic life was 25 years.

2. For these costs, TVA could sustain the identified levels for 99.5 percent of the cumulative duration of the low dissolved oxygen period. Systems to sustain these levels 100 percent of the time would increase initial costs about 50 percent. Annual costs include power losses, as appropriate at the Tims Ford, Norris, and South Holston projects. There would be no power losses at the other projects.

3. Six mg/l is applied to those streams that support a coldwater fishery, and five mg/l is applied to those streams that support a warmwater fishery.

Table 2

MINIMUM FLOWS

Project	Minimum Flow
Blue Ridge..................	73 cfs
Fort Patrick Henry..........	410 cfs
Chatuge.....................	86 cfs
Cherokee....................	565 cfs
Douglas.....................	586 cfs
Apalachia...................	320 cfs
South Holston...............	81 cfs
Watauga.....................	107 cfs
Nottely.....................	93 cfs
Norris......................	200 cfs
Tims Ford...................	100 cfs

Stafford (E&PW)

7. Question: Please describe what criteria are used to determine what type of modifications, if any, will be made to hydropower facilities to improve the quality of releases.

Answer: The following criteria are used to direct the process of selecting a design for modifications to a hydropower facility.

- Each project has its own individual characteristics, and the alternative selected must be adapted to existing conditions.
- The level of improvement must be sufficient to achieve measurable and notable enhancement to conditions in the stream.
- The cost of the work must be such that it can be afforded within budgetary constraints. Impacts on power operations must also be minimized.

Each proposed modification is developed through a series of tests, refinements, and retesting to ascertain performance of the modification and its impact on the existing plant. A modification is not considered a permanent feature until it has been operated successfully and cost-effectively for three to five years. During this time long-term impacts to the integrity of the turbines, operating regime, and other factors, including cost-effectiveness, are assessed.

8. Question: What effect on the efficiency of TVA power turbines do water quality related turbine modifications and other reservoir releases improvement strategies have? If there is lessened efficiency, what does this cost the power system in dollar terms? Does the power program absorb the cost for any loss of efficiency or is that paid for by appropriated funds?

Answer: Any time water is replaced by air in the flow through a turbine, there will be a corresponding reduction in power output. The impact of this is minimized by only using and operating devices that will affect power production during the low dissolved oxygen season. During the remainder of the year, there is no impact to power efficiency or power capacity. As a general rule, alternatives are selected that will limit power losses to 1 percent or less. Once below these levels, further estimates in losses have not been made. Large air flows can also change flow patterns within a turbine and thus increase cavitation damage to the unit.

Reimbursement to the power program is made to repair the units for any cavitation damage and to provide minimum flows through pulsing or sluicing operations. Considerable effort has been directed toward limiting capacity and efficiency losses to the lowest levels possible, while providing dissolved oxygen enhancement. Because the remaining losses are small, no reimbursement to the power program has been made for the residual loss in efficiency and capacity.

Stafford (E&PW)

9. Question: Do new turbine designs exist that provide for enhanced oxygen releases without the types of retrofit that TVA must perform? If so, what types of efficiency do these have with respect to the generation of electricity?

Answer: No, new turbine designs do not exist that provide for enhanced oxygen releases without the type of retrofit that TVA must perform. TVA has been actively investigating various types of hardware to improve dissolved oxygen in turbine releases including the modification of existing turbines to promote aeration. TVA believes that a research program aimed at developing a self-venting turbine could be beneficial and should be pursued.

10. Question: Is it possible that in the future, during any scheduled replacement of existing turbines, more permanent and efficient installations would be made to improve reservoir releases?

Answer: Yes. TVA is in the early conceptual stages of proposing a research and development program to pursue development of a self-venting turbine. The objectives of such a program would be the development of procedures and parameters for the design of new hydraulic turbine runners for upgrading existing turbines and for the design of self-venting turbine runners to increase dissolved oxygen levels in turbine discharges. Trade-offs between turbine performance levels, i.e., efficiencies and power output, and increases in dissolved oxygen would be examined. Such a program is needed to minimize turbine performance losses resulting from improved aeration.

11. Question: Are other utilities which are building or utilizing hydropower generation modifying their facilities to increase dissolved oxygen in their dam's releases? What types of requirements does FERC have in this respect? Are other Federal agencies such as the Corps of Engineers or the Bureau of Reclamation making modifications at their hydropower facilities in order to increase dissolved oxygen?

Answer: Some other utilities have also made modifications to their facilities to increase dissolved oxygen in releases from their dams. Water quality is one of the many environmental factors that the Federal Energy Regulatory Commission regulations require utilities to look at at the time dams are relicensed. Also, in the context of a State section 401 certification, the dissolved oxygen issue may also be addressed. We understand that other Federal agencies, such as the U.S. Army Corps of Engineers and the Bureau of Reclamation, are investigating measures for increasing dissolved oxygen releases from their hydropower facilities.

Stafford (E&PW)

12. Question: What type of follow up monitoring is TVA performing on its artificial wetlands projects? Please provide a summary of any data showing pre- and postproject effluent levels in the receiving stream at the projects that have been completed to date.

Answer: TVA does not yet have monitoring information on the municipal wetlands treatment projects being constructed in Kentucky. However, a comprehensive monitoring program has been developed to be implemented as funding is obtained. Construction of the Benton, Kentucky system was completed in January and final vegetation planting will be completed in March. Construction at Hardin and Pembroke, Kentucky will be completed in early summer, and monitoring will be initiated at system operation.

Due to the national significance of these demonstrations--potentially over $3 billion in savings for small public systems nationwide--we are currently negotiating with the Environmental Protection Agency for funding to conduct a monitoring program on these projects. This would provide a data base for basic design and operating criteria, evaluating cost effectiveness, optimizing design and operating guidelines, and providing information for technology transfer to the private sector.

This monitoring program will include influent and effluent samples, as well as samples within the wetlands cells, to determine spatial performance variability. In addition to standard National Pollutant Discharge Elimination System parameters, TVA plans to monitor load rates, hydraulic conductivity, length to width ratios, water levels, substrates, vegetation, selected animal populations, seasonal and annual variability, and changes in effectiveness during system maturation.

TVA is confident of the potential for wetlands waste treatment of a variety of wastes. Our analysis of data from a small research wetlands treatment system serving Iselin, Pennsylvania, indicates the following average effluent concentrations for key parameters for the first 31 months of operation: biochemical oxygen demand, 7.4 mg/l; total suspended solids, 19 mg/l; ammonia nitrogen, 3.3 mg/l; total phosphorus, 2.6 mg/l; and fecal coliforms, 150 count/100 ml.

In addition, the TVA power program has four operational wetlands systems treating acidic releases from strip-mined areas and a coal preparation facility, and has two systems at coal ash storage ponds. Four additional systems are planned for this summer. The following table displays the averages of key parameters attained during the period July 1985 through December 1986 from our longest operating system that treats inflows from a strip-mined area.

Parameter	Inflow		Release
	Seep 1	Seep 2	
Total iron (ppm)......................	74.9	82.4	1.0
Total manganese (ppm).................	7.8	11.5	2.1
Total suspended solids (ppm).........	85.5	102.5	2.8
Dissolved oxygen (ppm)...............	0.0	0.0	7.5
pH....................................	6.0	5.9	6.5

TVA believes that widespread application of this technology can provide an economically feasible method to improve the quality of our Nation's waters, without crippling the economic base of small communities, industries, and farms.

Stafford (E&PW)

13. Question: Do any of the reaches of the streams in the Tennessee Valley fail to meet State or Federal water quality standards? If so, which parameters are being exceeded and by how much? Also, has or will this situation limit new development of affected areas? If so, could you be specific as to what reaches of stream or river have or will be so impacted?

Answer: Water quality crieria for dissolved oxygen and fecal coliform bacteria are those most frequently not met in Valley streams. A total of about 300 miles of streams below TVA dams have dissolved oxygen concentrations below 5.0 mg/l during some portions of the year. TVA's reservoir releases improvement program is addressing dissolved oxygen.

Bacteriological contamination affects several locations across the Valley, partly because of inadequate wastewater treatment plants, leaky sewer systems, or pump station failures. Parts of Boone and Fort Loudoun Reservoirs, Chattanooga Creek, and the Little Pigeon River suffer from such problems. In other cases, the main cause of bacteriological water pollution is nonpoint source contamination such as runoff from urban areas, dairies, feedlots, hen houses, and pig farms. Some parts of Boone and Fort Loudoun Reservoirs, the Bear Creek Floatway, sections of the Duck River, the Middle Fork Holston River, and the Town Creek watershed on Sand Mountain fall into this category.

Pollution limits or precludes new development in several areas in the Valley. Areas in which development has been limited by either sewer connection moratoriums, posting to prohibit recreational use, or adverse publicity about one or more forms of water pollution include Bristol, Tennessee and Virginia; Johnson City, Tennessee; Gatlinburg, Pigeon Forge, and Sevierville, Tennessee; parts of Knoxville, Tennessee; the Bear Creek watershed in north Alabama; and parts of the area around Kentucky Reservoir from Camden, Tennessee, to Paducah, Kentucky.

High color in the Pigeon River and mercury contamination in the North Fork Holston River and in East Fork Poplar Creek near Oak Ridge are examples of less widespread but nevertheless serious water quality impacts. PCB contamination of fish flesh in levels that exceed current Food and Drug Administration standards is affecting fishing in the upper reaches of Watts Bar as well as Fort Loudoun, Tellico, and Wilson Reservoirs. Elevated levels of PCB in catfish from Guntersville, Wheeler, and Pickwick Reservoirs are also being studied.

Erosion from active and abandoned surface mines affects several areas, including the Ocoee River watershed, the Emory, Sequatchie, Clinch, and Powell River basins; and the Upper Bear Creek and Cedar Creek Reservoirs. Runoff from denuded areas in the Copper Basin periodically exceeds State pH and metals criteria, and each of these areas has high concentrations of suspended solids and siltation during and following heavy rainfall.

Excessive algal and weed growths, often occurs as a nuisance condition that affects several TVA reservoirs, particularly Guntersville, Chickamauga, Boone, and Kentucky. During last year's drought, the amount of aquatic weed infestations increased by over 10,000 acres, a dramatic expansion.

Water quality impacts, such as low dissolved oxygen, bacterial contamination, toxics, siltation, and eutrophication, are not unique to the Tennessee Valley. They occur across the Nation, and usually are the most frequent problems mentioned in the Environmental Protection Agency's biannual reports to Congress on water quality.

14. Question: Please provide charts and associated diagrams showing the following: The total amount of TVA coal obtained from strip mining annually since 1975.

Answer: The table below shows TVA coal obtained from strip mines for the past twelve years.

TVA Coal Obtained From Strip Mines

Year	Tons in Thousands
1975	22,223
1976	18,088
1977	17,106
1978	19,368
1979	21,363
1980	17,531
1981	14,239
1982	16,001
1983	14,324
1984	17,604
1985	14,579
1986	15,139

Stafford (E&PW)

15. Question: On a total coal consumption basis, the percent of TVA coal obtained from strip mining operations annually since 1975.

Answer: The following table provides TVA strip mined coal as a percent of TVA coal consumption on an annual basis for the past twelve years.

TVA Strip-Mined Coal As A Percent
Of TVA Coal Consumption

Year	Percent
1975	65
1976	46
1977	46
1978	54
1979	62
1980	49
1981	41
1982	58
1983	49
1984	62
1985	44
1986	44

16. Question: The total acreage of land strip-mined annually to provide coal for TVA since 1975.

Answer: The total number of acres of coal strip mined annually to provide coal for TVA since 1975 is as follows:

Year	Number Of Acres[1]
1975	2,253
1976	1,834
1977	1,719
1978	2,080
1979	2,514
1980	2,138
1981	1,771
1982	1,845
1983	1,679
1984	1,646
1985	1,645
1986	1,974

1. The acres mined were calculated utilizing the average thickness of strip mined coal for each State (estimated from Keystone information) weighted by TVA receipts from each State.

Stafford (E&PW)

17. Question: The amount and relative percentage of land strip-mined in the Valley for TVA and other coal users.

Answer: The amounts and relative percentages for the period 1975-1984 are as follows:[1]

	Valley Acres	Percent
Acres mined for TVA.................	15,709	14
Acres mined for other coal users....	98,196	86
Total acres mined..............	113,905	100

1. Data for coal production in Valley area is not readily available. Coal production is from the Valley States of Alabama, Tennessee, Kentucky, and Virginia. 1985-1986 data for the Valley States is not available.

18. Question: On a total coal consumption basis, the percentage of strip mined coal obtained from the TVA area (as opposed to outside the Valley) each year since 1975.

Answer: On a total consumption basis, the percentage of strip-mined coal obtained from the Valley States[1] for the period 1975-1986 is as follows:

Year	Percent
1975	54
1976	41
1977	39
1978	43
1979	50
1980	39
1981	33
1982	45
1983	36
1984	49
1985	35
1986	33

1. Valley States: Tennessee, Kentucky, Alabama, and Virginia.

Stafford (E&PW)

19. Question: The total amount of unreclaimed strip mined land in the Valley.

Answer: TVA's 1984 report, Orphans of the Valley (pages 7 and 16 are attached for reference), documents that some 32,000 acres of abandoned coal mine lands and 23,000 acres of noncoal mineral lands are unreclaimed. The coal lands were mined prior to the enactment of the Federal Surface Mining Control and Reclamation Act (SMCRA) of 1977, and the noncoal mineral lands were disturbed before State laws fixed any responsibility for reclamation. While progress is being made to reclaim many of the coal mines through provisions of the SMCRA, it is estimated that as much as one-third of the coal mine problem may never be reclaimed unless other provisions are made to extend Title IV of Public Law No. 95-87 or funding is provided so that agencies such as TVA can assist in accelerating these efforts.

TVA has taken a lead role in addressing the problems of reclaiming noncoal mineral lands since 1981. To date, 1,940 acres have been reclaimed. A major reclamation plan, including private business and State participation, has been developed for the remaining 11,000 acres in need of vegetation within the Copper Basin area of southeast Tennessee. While notable progress is being achieved in alleviating environmental problems of abandoned noncoal mineral mines, much more could be accomplished with adequate funding.

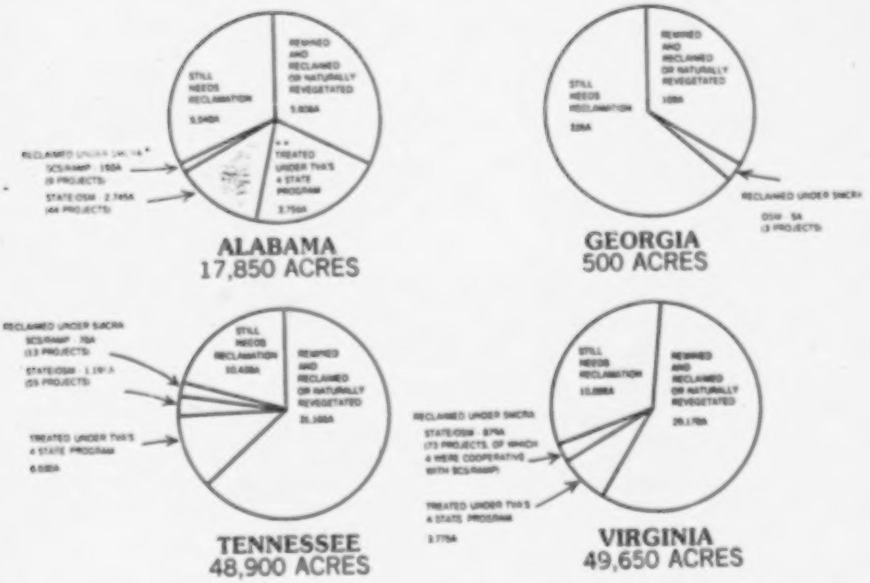

Figure 2. Estimated status of abandoned coal surface mine lands by States in the Tennessee Valley.

**Data through OSM's third grant period.*
***Some of these acres may require additional reclamation.*

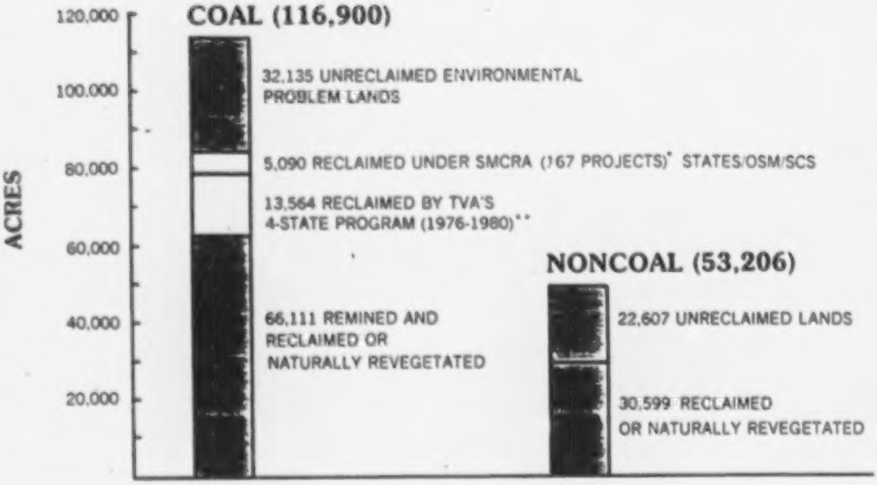

Figure 4. Estimated status of abandoned surface mine lands in the Tennessee Valley.

**Data through OSM's third grant period.*
***Some of these acres may require additional reclamation.*

Stafford (E&PW)

20. Question: What does TVA do to ensure that proper reclamation is performed at strip mines which provide coal to TVA? As part of your answer, please explain TVA's relationship with the Office of Surface Mining and with the States. Are present Federal and State programs adequate to ensure that adequate reclamation is performed in the Valley?

Answer: TVA has long taken action to control and mitigate the environmental impacts of coal mining in the Valley region. In 1965 TVA began including detailed reclamation requirements in coal purchase contracts under which the coal was produced by surface mining methods. On three separate occasions since 1965, TVA strengthened its contract reclamation provisions as a result of field experience in developing reclamation technology. To ensure satisfactory reclamation, TVA instituted a field inspection and enforcement program. TVA has also worked over the years with individual States to address coal mining problems through reclamation projects and support of effective legislation.

The reclamation provisions and measures TVA formulated in connection with its coal buying activities served as a model for Federal reclamation legislation, and TVA was an early and ardent supporter of such legislation. In 1977 TVA testified before the House Committee on Interior and Insular Affairs in support of the bill which became the Surface Mining Control and Reclamation Act (SMCRA) of 1977 (P.L. 95-87). After Congress passed the bill, TVA recommended that the President sign it. TVA has also argued against proposed amendments to SMCRA that would have weakened or destroyed its effectiveness.

After SMCRA's enactment and the establishment of the U.S. Office of Surface Mining (OSM), TVA determined that its own reclamation policy could be modified. Accordingly, TVA adapted contract provisions to provide that violations of these new Federal and associated State reclamation laws would be a breach of contract. If violations occur, TVA can suspend coal deliveries until the violation is corrected or terminate the particular contract. TVA continues to reject the bids of reclamation violators.

To check operator compliance with current standards, TVA conducts preaward reviews on all potential coal suppliers. Telephone inquiries to respective State regulatory agencies and OSM determine the potential suppliers' track record for violations (cease orders and notice of violations) and the Title IV, Abandoned Mine Land Fee payment record. Health and safety violations are checked with Mine Safety and Health Administration (MSHA) officials. Additionally, office and onsite reviews are conducted on all term contract sources by TVA staff.

Under TVA's current policy, we are highly dependent on the States, OSM, and MSHA for accurate information on the compliance records of suppliers. Even though SMCRA is nearly 10 years old, a small-scale monitoring effort we conducted in 1983-1984 noted several potential reclamation deficiencies. Results, while indicating the States and OSM were making progress in enforcing the law, also suggested that TVA ought to continue to inspect at least a percentage of its coal contractors. In this way contractors are kept aware of our insistence that they abide by current laws and fulfill coal source requirements, and that TVA supports these laws and the responsible agencies with its contract enforcement requirements. Preliminary results from 1986 show improvements in enforcement by Federal and State regulators.

TVA currently inspects 20 percent of newly awarded spot contracts. At least one term contract inspection is being made in each State from which coal is being purchased. The operations of any contractor, either spot or term, having known or suspected violations are also monitored. In this way, TVA promotes reclamation and supports State and Federal regulatory agencies.

21. Question: What percentage of land which is strip-mined under TVA contracts is inspected by TVA personnel to ensure that proper reclamation is performed? In actual and constant dollars, please show how much TVA has spent on these efforts each year since 1975. Also, in actual and constant dollars normalized to compensate for fluctuations in coal price, please show how much money TVA has spent annually on strip mined coal since 1975.

Answer: TVA started inspecting spot coal contract sources in 1965. This was expanded to include term contracts in 1971. Inspections continued until November 1978 when, after passage of SMCRA, TVA changed its requirements to rely on the enhanced Federal authority under this law. During this period 2,012 contracts were issued of which 1,848 have been fully reclaimed representing 39,000 acres. Reclamation of the remaining contracts is presently underway.

In 1983, as a result of questions about the effectiveness of enforcement of the current law, TVA reinitiated monitoring a percentage of its active coal purchase contracts to help assure compliance with the law. As a result of this reinitiated monitoring, TVA decided to monitor 20 percent of its active spot contracts (short duration) and 5 percent of long-term contracts, or at least one in each State in which TVA has term contracts, commencing in October 1986.

In Actual and Constant Dollars,
TVA Has Spent the Following Amounts
(In thousands of dollars)

Year	Actual	Constant[1]
1975	264	264
1976	355	334
1977	336	296
1978	304	250
1979	207	156
1980	170	118
1981	177	112
1982	193	114
1983	185	106
1984	184	101
1985	235	125
1986	259	133

1. Constant 1975 dollars.

Expenditures account for all coal contract compliance enforcement activities including inspection of pre-1978 areas, preaward review of prospective suppliers, and current monitoring activities.

In Actual and Constant Dollars
Normalized to Compensate for Fluctuations In Coal Price,
TVA Has Spent the Following Amounts of Money
For Strip Mined Coal
(In thousands of dollars)

Year	Actual	Constant Normalized[1]
1975	317,122	317,122
1976	280,726	261,440
1977	368,463	249,412
1978	511,509	283,162
1979	695,579	308,894
1980	626,558	250,253
1981	537,522	199,652
1982	601,958	226,811
1983	529,845	210,734
1984	620,717	267,599
1985	503,413	230,883
1986	486,113	249,750

1. Constant normalized 1975 dollars.

Stafford (E&PW)

22. Question: Is runoff from strip mine land a significant contributing factor to poor reservoir water quality? If so, please explain. Would a more aggressive program of reclamation in the Valley be a cost-effective way to improve water quality in the reservoirs?

Answer: Yes. Runoff from abandoned mine lands is a significant contributor to water quality problems in several TVA reservoirs. There are about 32,000 acres of abandoned coal mine lands and 22,000 of noncoal mineral mine lands contributing sediment to TVA reservoirs. Silt or sediment alters the chemical balance of water, buries aquatic organisms, alters feeding and spawning habits, and suffocates fish by coating their gills. Sediment clogs streams and fills reservoirs, reducing water storage capacity, which increases the possibility of flood damage. Sediment damages hydroelectric units at TVA dams, reduces opportunities for recreation, and increases public water supply treatment costs through abrasion of equipment and clogging or covering over of intake pipes.

At Upper Bear Creek Reservoir, for example, mining was responsible for the silting of recreational areas, poor to almost nonexistent fishing, and operational difficulties at a water treatment plant due to the overall poor quality of water throughout the reservoir. Abandoned coal mine lands adversely impact water quality in the Clinch and Powell Rivers which enter Norris Reservoir, the Emory River which enters Watts Bar Reservoir, and the Sequatchie River which drains to Guntersville Reservoir.

Noncoal mine lands are responsible for several critical water quality problems in TVA reservoirs. Thirty miles of the Ocoee River from Copper Hill to Cleveland, Tennessee, is a biological desert due to runoff from denuded copper mine lands. One TVA reservoir, Ocoee No. 3, is essentially filled with silt with over 90 percent of its original storage capacity lost. Ocoee No. 1, the last reservoir on the Ocoee River, has lost 25 percent of its storage capacity and will be completely filled within 75 years if reclamation is not aggressively accomplished. Recreational and fishery impacts are already occurring in Ocoee No. 1 as siltation in the upper end of the reservoir creeps further downstream towards the dam. Erosion from noncoal mine lands also adversely affects water quality in Cedar Creek Reservoir (abandoned brown iron ore mines), Kentucky Reservoir (abandoned sand mines), Upper Holston River (abandoned manganese mines), and Duck River (abandoned phosphate mines).

A more aggressive program of reclamation would clearly be a cost-effective way of improving water quality in TVA reservoirs and streams. Funding provisions of the Federal Surface Mining Control and Reclamation Act require that all coal lands must be reclaimed before noncoal sites. Noncoal lands can take priority upon request of the governor of a State, but even then, as with coal lands, health and safety hazards take precedence over environmental improvement and protection.

Because of this restriction, no attention is being given under the Act to reclaiming noncoal lands, and only limited treatment is given to coal lands. Through its water resource program, TVA has taken the lead to demonstrate cost-effective reclamation techniques for noncoal mine lands. A low-cost, minimal disturbance reclamation technique has been developed which has allowed TVA to control erosion on a portion of these problem areas at a fraction of the cost of traditional reclamation approaches.

In the Nolichucky River, which drains to Douglas Reservoir, TVA demonstrated that for about $825 acre, abandoned mica and feldspar mine lands could be reclaimed, and successfully completed the reclamation of 600 acres in cooperation with the State of North Carolina and local landowners. Fish have returned to the Nolichucky River as a result of these erosion control efforts. A similar low-cost reclamation technique is being demonstrated in the Copper Basin in cooperation with the Tennessee Chemical Company, where preliminary results indicate essentially no offsite sediment movement from a treated watershed that once contributed 250 to 300 tons per acre per year of soil loss. We estimate that the remaining 11,000 acres of denuded lands in that basin could be reclaimed at a total cost of $6 million. These same reclamation techniques could be applied to all the noncoal problem areas in the Valley. Accelerated reclamation of all coal and noncoal abandoned mine lands would improve water quality in the TVA reservoir system and would help to restore all of the beneficial uses of these waters.

Stafford (E&PW)

23. Question: Please describe and provide justification for the Board's recent decision to modify existing coal contracts for the Bull Run and Kingston power plants. What will be the increase in emissions from these plants? How much money will TVA save due to this decision? Is similar action being considered with respect to any other TVA coal-burners? If so, please describe.

Answer: Under the provisions of contract No. 72P-40-T18, Falcon Coal Company submitted a claim for a sizable price increase on coal already shipped to TVA and this price increase was to be effective on future coal deliveries. As part of the resolution of the disagreement regarding this claim, TVA and Falcon agreed to modify the terms of the existing coal contract, reduce the cost reimbursement and future price increases, reduce and revise the annual delivery schedule, and increase total deliveries by 1.8 million tons from TVA's Paradise Fossil Plant to Bull Run. A slight increase in the guaranteed sulfur content of the coal to be delivered is allowed under the resolution reached. However, such an increase, even if it occurs, would only increase SO_2 emissions from the plant by less than 10,000 tons per year, and the plant will continue to emit at a rate well below that allowed by the applicable SO_2 emission limitation. Had TVA replaced this coal at Bull Run in the open market under the competitive bid process, it is highly probable that the replacement coal(s) would have contained a higher sulfur content. The Falcon contract was, and with the recent modifications, will remain TVA's single largest contract for low-sulfur coal (8.9 million tons). Further, the low-sulfur Falcon coal which was projected to be burned at Kingston will not be lost but will be burned at Bull Run. Purchases which replace the Falcon coal at Kingston will have a higher sulfur specification, and therefore emission levels could increase (less than 15,000 tons on an annual basis) but not above the applicable emission limitation. However, the total coal burn at Kingston varies greatly with demands on the fossil system and, therefore, if nuclear generation is available in 1987 and beyond, annual total emissions could decrease substantially from the 1986 level.

In summary, modification of the Falcon contract ensured continued delivery of a low-sulfur coal and increased by 1.8 million tons the amount of low-sulfur coal under contract. Although SO_2 emissions may increase on a per-ton basis, this action should result in a lower combined SO_2 emission rate for Bull Run and Kingston until December 1990 when the contract is now scheduled to expire. This resolution of the disagreement with Falcon Coal Company is expected to save TVA approximately $34 million on a present value basis.

Other actions are being considered at two TVA plants which will have some effect on future SO_2 emissions. At the Paradise plant in Kentucky, the plantwide emission limit of 3.1 lb. $SO_2/10^6$ Btu is met by meeting different limits on individual units. TVA has proposed that the limits on the individual units be adjusted to provide a more economical method of compliance with the 3.1-lb plantwide limit. If these adjusted limits are approved, there is a potential for an operating cost savings of $4-$6 million per year and some increase in actual emissions, (less than 15,000 tons per year) which have been far below allowable levels. Investigations are under way at Paradise to find ways to minimize such increases.

At the Colbert plant in Alabama, a 45-percent reduction in the SO_2 emission limit on four of the five generating units has been proposed in response to EPA's latest stack height regulations. If this lower limit is approved, a supply of lower sulfur coal will be obtained for these units and plant emissions will be correspondingly reduced.

Finally, the return to service of TVA's nuclear units will, of course, result in a substantial reduction in SO_2 emissions from TVA's coal-fired plants.

Simpson (E&PW)

1. Question: Please expand in more detail on what kind of activities your fertilizer development program undertakes, where the funding for this program goes, and the justification for the activities that you are carrying out?

Answer: TVA meets its fertilizer responsibility by operating a national fertilizer laboratory at Muscle Shoals, Alabama. Known as the National Fertilizer Development Center (NFDC), it is the source of most of the Nation's new fertilizer technology.

The foundation for new fertilizer products and new manufacturing methods is laid in extensive chemical and soils research programs. Promising new fertilizers are tested for their suitability with different crops, first at Muscle Shoals, then by university research around the country. Engineers scale up and refine the new technology in pilot plants and prototype production facilities. We contract with 40 land-grant universities and their extension services and experiment stations to conduct additional laboratory and field research. Limited quantities of new fertilizers are sold to members of the industry for testing and introduction. Staff members work with them to identify and resolve problems. As commercialization of a given new fertilizer occurs, TVA shifts its emphasis to other projects.

Information is shared with potential users throughout the process. Patents are obtained on new process developments and licenses granted to private companies for their use. Commercialization of past technology is unsurpassed. We have recently established a pilot program in which a few selected patents will be licensed on an exclusive, partially exclusive, or nonexclusive basis for payment of reasonable royalties and/or fees. We hope to continue the effectiveness of technology transfer to the private sector while also recovering a greater portion of TVA's R&D costs through patent-related income.

We are continually fine-tuning our efforts. Our researchers are extremely competent and oriented to apply new scientific development from many disciplines to fertilizer improvement. We have day-to-day interactions with members of the industry, academia, and others, and regularly consult with industry leaders and agricultural professionals to make sure we are giving priority attention to areas of major concern.

Last year the private sector supported 31.7 percent of our national program. In addition, 6.6 percent funding came from reimbursable services performed for other agencies such as DOD, DOE, and AID.

It is estimated that funding for the program in fiscal year 1988 will be used to cover the following expenses: offices and laboratories - 12.0 percent; utilities - 16.5 percent; maintenance - 10.6 percent; materials and supplies - 17.0 percent; travel - 1.0 percent; and salaries and wages of employes - 42.9 percent.

A major justification for the activities we are carrying out is that this is the Nation's only program that combines agricultural and industrial research; is national in scope; and addresses the entire spectrum of R&D covering raw materials, processes, waste recovery, agronomic testing, economic evaluation, methods of application, and the environmental effects of fertilizers. A partnership of Federal and State agencies, universities, fertilizer industry, agribusiness, and farmers delivers results to the ultimate beneficiary of the research--the American consumer.

Benefits of the program are (1) increased farm profitability, (2) increased strength of the domestic fertilizer industry, (3) reduced risk of agricultural pollution of water resources, (4) economic recovery of waste materials, and (5) continued supplies of economical, high-quality food, feed, and fiber for the consumer.

Simpson (E&PW)

2. Question: Why are these particular activities not being carried out by the private sector, and could they or should they be assumed by private enterprise? In short, what is the justification for the Federal Government paying for these activities?

Answer: The private sector is already paying 31.7 percent of our national program. The fertilizer industry is fighting for economic survival because of reduced sales associated with diversion of significant acreages of cropland and increased foreign imports. The few companies with R&D programs have abolished them or reduced them to token efforts. Under these conditions, the fertilizer industry cannot fund the long-range research we perform, even though such research is vital to their survival. Individual companies are only able to pay for applied research wich offers fast solutions to specific company problems.

More fundamentally, however, the fertilizer industry should not fund the majority of our research. Our fertilizer research goes beyond processes and products into proper use of fertilizers and environmentally safe fertilizer practices. The beneficiary of much of the research is not the industry, nor even the farmer, but the consuming public--that is, society. If our research shows that certain fertilizer practices are posing a threat to society, we must be free to say so. If our research shows that farmers in some cases are using too much fertilizer, we must be free to recommend using less, even if the industry does not benefit from such a recommendation. If we rely heavily on industry to fund our research, even if they were able and willing to supply such funding, we have to cede to them the right to dictate the types of research we do and the right to control dissemination of information. Moreover, the smaller fertilizer firms--which comprise most of the industry--could lose out on research to the larger firms.

Simpson (E&PW)

3. Question: With regard to your use of the Federal Financing Bank, please describe how you came to enjoy acess to FFB financing, the extent to which you have borrowed through the FFB, the amount of FFB-financed money that you have repaid, the balance of FFB-financed loans still due, and the justification, in your view, for FFB financing of TVA activities?

Answer: The Federal Financing Bank was created to provide for coordinated and more efficient financing of Federal and federally assisted borrowings from the public, to reduce the costs of such borrowings, and to minimize the disruption to private financial markets and institutions. In the legislation creating the bank, TVA was given the option of obtaining its borrowed funds from the FFB or alternatively, continuing to borrow in the public markets. TVA's initial borrowings from the FFB were in 1974 and, as encouraged by the FFB, subsequent borrowings since that time have also been obtained from the FFB. In each case these borrowings have been obtained at interest rates below that available from other alternative borrowing sources. TVA continues to monitor these alternative borrowing sources to ensure that power program borrowings are obtained at the lowest possible cost.

Indeed, the Treasury makes a profit on the FFB loans to TVA, which are priced at the Treasury's borrowing cost plus one-eighth of 1 percent. This produces about $20 million each year in net revenue to the Treasury from TVA ratepayers, for exceeding the $2 million annual budget of the FFB.

Such future borrowings by TVA will continue to meet the purposes for which the bank was created and also provide power program borrowings at the lowest available cost. There is no cost to the Treasury or the Nation's taxpayers. TVA power borrowings are by law neither obligations of nor guaranteed by the United States. They are secured by future power revenues.

TVA Borrowings From the Federal Financing Bank
($ Millions)

Fiscal Year	Power Bonds: Issued	Power Bonds: Matured	Power Bonds: Called For Early Redemption	Power Bonds: Net	Power Bonds: Outstanding End of Year	Short-Term Borrowings[1]: Outstanding End of Year	Short-Term Borrowings[1]: Change From Previous Year
1975	800	-	-	800	800	635	635
1976	800	-	-	800	1,600	580	-55
19TQ	400	-	-	400	2,000	735	155
1977	900	-	-	900	2,900	980	245
1978	800	-	-	800	3,700	1,520	540
1979	1,500	-	-	1,500	5,200	1,925	405
1980	2,400	300	-	2,100	7,300	1,635	-290
1981	2,300	-	-	2,300	9,600	1,310	-325
1982	2,100	-	-	2,100	11,700	585	-725
1983	850	-	-	850	12,550	565	-20
1984	250	-	-	250	12,800	685	120
1985	1,100	-	-	1,100	13,900	481	-204
1986	2,425	-	1,300[2]	1,125	15,025	52	-429

1. Short-term borrowings are used for cash management purposes in lieu of having to invest for short periods the proceeds from long-term bonds. The amount of short-term borrowings outstanding at any one time will vary from day to day and week to week, rising just before a long-term bond issue is sold.

2. Called before maturity in accordance with the terms of the bonds which provided for redemption after 10 years upon the payment or the principle plus the prescribed premium set out in the bond.

Simpson (E&PW)

4. Question: Do you intend to refinance any of your existing debt, not currently financed through the FFB, by resorting to FFB financing?

Answer: TVA has established a bond retirement fund to retire $4.6 billion of debt associated with the construction of eight nuclear generating units that have been canceled. A number of factors will be considered in determining the most advantageous arrangements for retiring this debt. The application of proceeds from the fund to retire debt may be done in one or a combination of ways. The proceeds from maturing zero-coupon bonds may be used to retire debt in the 2002-2003 time period; or fund proceeds may be used to call some of TVA's bonds before maturity by paying the designated premium. All of these alternatives will be considered in the light of prevailing economic conditions. Because of the relatively low coupon interest rate on TVA bonds callable prior to 1990, it is unlikely that funds from the bond retirement would be utilized to retire debt before 1990.

As to its other long-term debt, TVA will be looking toward the best interests of the ratepayers, as well as the protection of bondholders, as decisions are made from time to time about the refinancing or retirement of all or part of such borrowings. Since future economic and financial conditions are unknown, it would be premature to predetermine a repayment strategy. The refinancing of long-term debt is currently an advantageous course of action being followed by electric systems. Reinvesting the allowance for depreciation in power assets maintains the revenue-producing, and thus the interest-paying, capability of the investment provided by this portion of debt. From a near-term standpoint, it appears refinancing by TVA would be in the interest of the ratepayers and would, of course, be consistent with the prevailing practice. Based on TVA's current projections of capital expenditures and internally generated funds, all of TVA's maturing long-term bond issues through fiscal year 1990 are expected to be refinanced. As long as the FFB provides lower interest rates than alternative sources of funds, we would expect the refinancing to be handled through the FFB.

Refinancing TVA's long-term debt would have no adverse budget effect. Under OMB's current budget practices, the rollover of debt is not treated as a new transaction and does not affect budget outlays. It is, therefore, "budget neutral." Moreover, such refinancing actually earns the Treasury a profit because FFB would continue to earn a one-eighth of 1 percent interest charge for the Treasury to use in financing Government expenses generally.

Simpson (E&PW)

5. Question: What are your projected borrowing plans for the next five or six years, and to what extent will you be resorting to FFB financing?

Answer: Projected net borrowings for the next six fiscal years, all of which are expected to be obtained from the FFB, are as follows:

Fiscal Year	($Millions)
1987	1,151
1988	315
1989	317
1990	251
1991	374
1992	414

These projections are based on a number of assumptions relating to construction schedules, NRC licensing decisions, electricity sales, and other hard to predict variables. Any changes in these asusmptions will, of course, change the projected borrowings.

Simpson (E&PW)

6. Question: As I understand your appropriated activities, considerable benefit is derived from these activities by those in the Tennessee Valley Region. In light of that, please comment on whether it would make sense to finance your appropriated activities out of your power program revenues?

Answer: TVA power already pays for all those activities that directly benefit the power program. This includes obtaining engineering, environmental, and other services within TVA. It also includes its share of the development and operation of the multipurpose reservoir system, where benefits are shared among navigation, flood control, recreation, and power generation. To ask the purchaser of electric power to pay more by providing funds for similar nonpower programs in the Tennessee Valley would be most unfair. It would also be illegal. TVA power funds can onlyl be spent for power program purposes.

Beyond these technical and legal issues, however, there is a much broader issue to be dealt with in considering the use of power funds for appropriated activities. TVA was created to serve as a demonstration of regional development to the Nation. TVA's criteria in selecting projects and designing programs have always included potential benefits to the Nation. It would be grossly unfair for the ratepayers of the Valley region, who are already paying for 100 percent of the costs of running the power program, to also have to shoulder exclusively the cost of the appropriated programs. These programs include those at the National Fertilizer Development Center which conducts the Nation's only governmental research, development and demonstration of new fertilizers and fertilizer technologies, the Tennessee River system which provides enormous national benefits as it links the Tennessee Valley to the Ohio, Mississippi, and Tenn-Tom river systems, and Land Between the Lakes, a 170,000 acre education and recreation area which serves the entire midsection of the United States. Many of these programs have counterparts in other areas of the country. For example, water resource development progrms are administered by the Corps of Engineers and the Department of the Interior, and are supported by the Nation's taxpayers.

NUCLEAR REGULATORY COMMISSION

Senator **BREAUX**. Now I'd like to invite up, as a panel, the Nuclear Regulatory Commission: Mr. Lando Zech, the Chairman; Mr. Thomas Roberts, Commissioner; Mr. Fred Bernthal, Commissioner; Mr. James Asselstine, Commissioner; and Mr. Kenneth Carr. If they would take their places at the witness table, we would be pleased to receive their testimony.

The committee welcomes the panel and we'd be pleased to receive their testimony. I just have a couple of comments that I'd like to have for the record.

With respect to the NRC, this agency is perhaps in a somewhat envious position from the budgetary standpoint, being one of the few Federal agencies that is up for a budget increase under the President's proposal. Of course, following years of budget decrease, some will undoubtedly argue that the requested increase is still insufficient if the agency is to successfully pursue its legislated mandate.

I think it is fair to say that this year's budget request, in combination with the proposed staff reorganization, is designed to reflect a shift in the principal activities of the agency, if not its overall philosophy, from a program emphasizing the licensing of new plants to one of monitoring the existing plants. And given the fact that we have 107 licensed plants, only 18 under construction, and no new construction applications, this shift in emphasis is, perhaps, appropriate.

While I can appreciate the temptation for members to discuss a broad array of policy issues in today's hearing, particularly in light of recently-publicized NRC staff issues related to the emergency planning issue, I would hope that we could remain focused on a number of budget issues presented to us by the President's budget. It would be my hope to shortly announce subcommittee hearings on the NRC authorization which is, I believe, a more appropriate forum to resolve the emergency planning issues, among other issues.

I would also hope that the subcommittee will be able to shortly conduct an oversight hearing on the nuclear waste issue as well as to begin the process of examining the necessary extension of the Price-Anderson legislation.

With that, does anybody else have any comments? Senator Stafford? Senator Symms?

Senator **STAFFORD**. I have no comment, Mr. Chairman.

Senator **BREAUX**. Admiral, we welcome you and your Commission members, and we look forward to receiving your testimony.

STATEMENT OF LANDO W. ZECH, JR., CHAIRMAN, NUCLEAR REGULATORY COMMISSION

Mr. **ZECH**. Thank you very much, Mr. Chairman.

Mr. Chairman, members of the committee, the Commission appears before you today to discuss Nuclear Regulatory Commission's fiscal year 1988 budget request. With me today are my fellow Commissioners, the Executive Director for Operations, the General Counsel, and the principal Office Directors.

The Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 assigned the Nuclear Regulatory Commission important responsibilities. The Commission believes that sound and credible Federal safety regulation is an important component in assuring the continuing safe use of commercial nuclear power. We at the NRC intend to continue to pursue a policy of firm and fair regulation of the nuclear industry.

Public confidence in nuclear power was shaken by the TMI accident. The Chernobyl accident has exacerbated the situation. We believe there are serious challenges today in order for our fellow citizens to continue to receive the benefits of nuclear power. We at the NRC are structuring our programs to meet these challenges. Congressional support in providing us the needed resources is an essential factor in attaining success.

While there may be many challenges, we believe it is important to recognize that commercial nuclear energy, for more than 20 years, has been making an important contribution to our Nation's electrical needs and, with continued emphasis on safety, will be able to contribute to our Nation's future energy needs. The Nuclear Regulatory Commission is composed of many dedicated and competent professionals who can be counted on to perform with integrity, candor, technical competence, and with the very strongest commitment to safety in the service of the American people. With your continued support, Mr. Chairman, I believe the American people will continue to be very well served by the NRC.

The NRC's fiscal year 1988 budget request and the fiscal year 1989 budget estimate reflect our commitments towards ensuring the continued safe operation of the 107 licensed nuclear power plants as well as the quality construction of those plants remaining to be brought on-line. Additionally, our commitments involve protecting the public from risks associated with the widespread use of nuclear materials; ensuring the safe transportation, storage, and disposal of nuclear waste; providing appropriate safeguards for facilities and materials; establishing a more predictable and stable regulatory environment; encouraging nuclear power plant standardization; providing resources for essential safety research; managing agency resources more effectively and efficiently; and consolidating NRC headquarters offices.

The NRC budget request for fiscal year 1988 is for $427.8 million and 3,250 full-time equivalent staff. Our fiscal year 1989 budget estimate is $422.6 million and 3,180 full-time equivalent staff. This budget shows our plan to reduce full-time equivalent staff allocations by about 10 percent from the fiscal year 1986 level. It also reflects essentially the same funding level as we have had in fiscal year 1987, plus a small increase primarily needed for essential safety research, oversight for the increasing number of operating reactors, and the materials inspection program. It also provides funds for consolidating the majority of our Washington, D.C. headquarters staff into one building located in Rockville, Maryland.

Mr. Chairman, this is a straightforward, responsible budget, one that we believe contains the resources needed to fulfill our responsibilities. The Commission recognizes and is supportive of the need for budget austerity, and we have initiated actions to become more productive and to reduce resources.

Two specific examples of our efforts to become more productive and efficient are building consolidation and reorganization. We are finally able to begin consolidating our headquarters offices after more than 10 years of operations dispersed among 10 different buildings around the Washington, D.C. area. The General Services Administration has purchased an 18-story office building and signed an agreement to lease space in an adjacent building, scheduled for construction within about three years. This will permit full headquarters consolidation in Rockville. We believe the benefits in terms of increased efficiency and effectiveness will be permanent, and will have a positive effect on our ability to protect the public health and safety.

Additionally, I have initiated—with Commission support—a major agency reorganization. The purpose of the proposed reorganization is to better accommodate the changed nature of the agency's responsibilities and workload through a more effective and efficient organizational structure. The responsibilities of the Nuclear Regulatory Commission have shifted from evaluation of construction permit and operating license applications to the regulation of a maturing operational industry. For example, in 1975, when the NRC was formed, there were 52 plants licensed to operate, 69 plants under construction, and 75 applications under review for construction permits. Today, there are 107 plants licensed to operate, 18 plants under construction, and no applications for construction permits. Up to this point, however, the structure of the agency has not evolved to reflect the shift in responsibilities and the need for both different, and differently deployed, resources. Our current reorganization initiative is an attempt to more properly reflect our responsibilities as we see them today and into the 1990's.

The basic reorganization structure and many of the senior managers have been recently approved by the Commission. The reorganization is planned to become effective in April, 1987.

In the new organization, the Office of Nuclear Reactor Regulation, NRR, will be responsible and accountable for licensing, inspection, and safeguards programs for reactors. The Office of Nuclear Materials Safety and Safeguards, NMSS, will have a parallel responsibility and accountability for non-reactor safety programs, including nuclear waste management.

The Office of International Programs and the Office of State Programs will become Commission-level offices rather than staff offices. They will report to the Commission through the new Office of Government and Public Affairs.

Another feature of the reorganization is to increase the responsibilities of the Office of Nuclear Regulatory Research. The Office of Nuclear Regulatory Research will now be responsible for resolution of generic safety issues, including unresolved safety issues, and for the review of full-scope probabilistic risk assessments. These assignments are intended to bring about a closer tie between research and other agency safety programs.

The NRC research program is needed to provide us with sound technical information that we must have to deal effectively with complex technical issues. Between fiscal years 1981 and 1987, research funds have been reduced by more than 50 percent. The completion of large research projects and joint programs with other parties have helped mitigate the effect of these reductions. However, the Commission is concerned that our capability to deal with future nuclear power plant problems will be greatly impaired by continued erosion of our research program funding.

The NRC will continue to rely on industry to conduct programs supportive of the agency's regulatory programs. Some significant examples of current industry programs include reassessment of Babcock and Wilcox-designed reactors; accreditation of training for reactor personnel, and the industry degraded core rulemaking review.

The Commission believes that it is important to increase the regulatory stability and predictability of our regulatory process. The Commission is currently reviewing a legislative proposal to improve the reactor licensing process. Additionally, NRC is acting to effect improvements in nuclear regulation where it is within our existing authority to do so. The Commission believes that the future of the industry would be best served by adoption of standardized plant designs. Although we believe that legislation would be highly desirable, the Commission is developing a policy statement which will emphasize the Commission's expectations that future reactor designs be standardized.

The appendix to our prepared testimony summarizes the agency's budget request by major budget categories. The details of our budget request are contained in our submission, which has already been provided to the committee.

In closing, Mr. Chairman, we want to reemphasize the Commission's belief that our fiscal year 1988 budget request is a straightforward and responsible budget. It contains the resources that we believe are necessary for us to meet our regulatory responsibilities for protection of public health and safety in the civilian use of nuclear materials. We urge your strong support for the full amount of our request.

Thank you, Mr. Chairman.

Senator BREAUX. Thank you very much, Admiral.

Do any of the other Commissioners have statements, or are they here to respond to questions from the committee?

[No response.]

Senator BREAUX. Let me ask my first question. On page 7 of your statement, talking about the reorganization program you say that one of the features of the reorganization is to "increase the responsibilities of the Office of Nuclear Regulatory Research." Of course, that's an extremely important office. I note that the National Academy of Sciences released last month a highly critical report on the research program of the NRC, and part of their statement says that they found "a program that lacks direction and a coherent, effective set of principles for organizing an integrated program of research." The Academy also concluded that "management problems within the NRC made it unlikely that any detailed modification of the content of the NRC research program would lead to a significant improvement."

I take it from your statement that you're talking about increasing the responsibilities, but have you addressed some of the concerns that were expressed by the National Academy? They were pretty strong statements. Are they that far off base, or are they right on point? And if they are, how are we addressing that concern?

Mr. **Zech**. First of all, Mr. Chairman, let me say that our staff is currently reviewing this National Academy of Sciences report and will present their recommendations to the Commission towards the end of this month.

Frankly, I agree with many of the recommendations. I think they are generally on target. I think the report is certainly critical. It supports, though, a strong regulatory research program. I think the Commission supports that, and we have tried to say so in our budget request for 1988.

We have decreased our research budget by 50 percent in the past six years. We think we're at the point now where it should not be decreased further; in fact, it should be increased somewhat, and that's part of our fiscal year 1988 request. I think the report, though, should be put in perspective; and if I just may say briefly, it should be recalled that the NRC requested the National Academy of Sciences to do this report and to make this review. It was a responsible NRC action. I think we recognized that our research program was perhaps not serving us as well as it should. I think the report is useful; I think it is valuable, and although there may be one or two items I disagree with, I think in general it has been a very valuable report and serves us well.

I'd just like to say in conclusion, Mr. Chairman, that I believe our new reorganization, where we are bringing in a good part of reactor safety-type responsibilities to the research program—for example, reviewing generic issues, unresolved safety problems—will bring together in our research organization a solid mix of regulatory safety issues and people that will strengthen our research program. I do believe the report in general is a good report. I think we're looking at it very candidly and openly, and when we get the staff review at the end of this month, my conclusion now is that we will be able to move forward and accommodate a good deal of those recommendations, and I think it will make a contribution to the NRC.

Mr. **Asselstine**. Mr. Chairman?

Senator **Breaux**. Yes, Commissioner?

Mr. **Asselstine**. If I could add just a couple of comments. I generally supported the reorganization effort that Chairman Zech initiated. I think it moves in the right direction in moving the agency towards dealing with the kinds of problems that we now have, that is, taking care of a large number of operating reactors.

The one aspect of the reorganization that I disagreed with was giving greater responsibilities to our Office of Research, and for precisely the reason identified in your question. I believe that the National Academy of Sciences report is right on the mark, and two of their criticisms are that, first, we have lost—or we have not been able to attract—top-quality people to head that organization who have actual research experience. And second, that the effectiveness of that office has been diluted by including in that office standard-setting responsibilities. I think what the Commission has done by assigning responsibilities for deciding generic issues to the research office is simply to compound the problem that we've had in the past. My preference would be to make the research office an effective and functioning support organization, to make it do its research job well, and then—and only then—to consider assigning it new responsibilities.

I also think it was a mistake to reduce the responsibilities of the Office of Nuclear Reactor Regulation by assigning these generic review responsibilities to research. I think it was useful to have one group and one organization within the NRC—and indeed, one individual who was the chief staff officer for reactor safety, and who was responsible for reviewing and deciding all major issues affecting reactor safety. I think the reorganization has diluted that responsibility.

So I differ with the Commission on this one issue of whether the research organization should be given greater responsibilities. I think it is going to be more difficult to make that office function effectively with the reorganization than otherwise would have been the case.

Senator **Breaux**. I think that's some of the concern that I was trying to express. We are faced with a report that has been done at the Commission's request, I take it, that is highly critical of a major component of the NRC. And the statements talked about a program that lacks direction, a coherent, effective set of principles; talks about management problems that make it unlikely that any detailed modification of the content of the program would lead to any significant improvement. And the only thing I think we're seeing in this statement, Admiral, this morning is that you want five percent more money and you want to increase the responsibilities. I don't hear anything about management changes. I don't hear anything about personnel changes in this statement. While we're looking at more money for this particular department, a critical department, we're not seeing anything that addresses some of the concerns in the report, but we are asked for more money.

Mr. Bernthal?

Mr. **Bernthal**. Senator Breaux, I'd like to make one or two comments on the Academy report.

First of all, if there's one area in which I think one does not find a fatal flaw in the mistakes that have been behind some of the missteps in our research program in the last several years, it's in management per se. I don't think you're going to find the solution in that area, or at least not in areas in one or two cases identified by the panel. And that is the only respect, frankly, in which I would take some minor exception to the panel report. In most other respects I have to tell you that there are those of us on the Commission that urged exactly many of the changes recommended by the panel—oh, I guess, in December of 1984 and again in the spring of 1985—and didn't get very far. Well, the panel has now largely supported some of those points. There are points that were raised by the APS American Physical Society that are echoed again in the National Academy. The American Physical Society was asked to carry out a review of the source term programs of the NRC and generally of the industry; but in the process of that review, they also pointed to a number of serious problems in the NRC's research programs. These same issues that were raised by the American Physical Society already in 1984—and frankly, not dealt with by the Commission at that time—have simply been reechoed in many respects by the Academy.

I do not think, however, that a single administrator or, as noted by at least some members of the Academy panel, the Sunshine Act—that these administrative problems are the primary reasons for the difficulties that we have. I think we can solve these problems, and I have to say that I think the steps are underway now that will deal with them.

Mr. ZECH. Permit me to say, Mr. Chairman, just very briefly, I would disagree with Commissioner Asselstine's comments that we've diluted the responsibilities in research. I think we've increased them significantly. And the purpose of the reorganization plan points right to what you're talking about. There are management changes; there are a significant number of people coming from the NRR organization, for example, to beef up research, to make research—in my view, anyway—more focused on regulatory responsibilities. And I do think we will be focusing on the critical elements of that report.

I am rather confident, rather optimistic that when we put our organization together, we will indeed be addressing these criticisms which again, I think, in general are valid. But I feel that we are now taking steps—perhaps we should have taken them some years ago—but I do think the effort is there. This is what we're trying to do; I suppose the proof will be in how it turns out. I can only assure you we'll be watching it closely. We'll be watching that report and seeing how we are measuring up, how those criticisms are turning out. I fully intend to check on that myself, and certainly hope that we will see some improvement.

This reorganization essentially addresses, in my view, the key elements of that report, and the proof will be how the implementation works out. And I can't project that right now except to say that I think we're on the right track and we'll be watching it closely.

Senator BREAUX. Well, this committee and all the Members want to follow it very carefully to see what steps are being taken to address the problems that arise.

Senator Stafford.

Senator STAFFORD. Thank you, Mr. Chairman. I'm going to have to leave for another meeting in a minute, so I have some questions I'd like to submit for a response in writing, if that's agreeable.

Senator BREAUX. Without objection.

Senator STAFFORD. I have one I'll address here, and that is this. Admiral Zech, how much in resources of NRC is devoted to problem facilities, such as the facilities at TVA and Comanche Peak?

Mr. ZECH. Senator Stafford, I would have to give you a better answer as far as specific resources, but if I may describe in general what we are doing there very briefly——

Senator STAFFORD. Sure. Go ahead.

Mr. ZECH. We are devoting considerable resources to TVA and to Comanche Peak, a great number of resources in people and in dollars. We have followed, for example, the TVA situation since the problems began some time ago, with a senior management team, and that's been composed of some of our very senior people at the headquarters staff in overviewing those problems. We have sent an augmented inspection team on a permanent basis to oversee the TVA situation.

Recently, we have decided to focus TVA and Comanche Peak in a different approach, and we have charged Mr. Kepler, who has our Region 3 Administrator responsibilities now, with taking on full time the Comanche Peak and TVA responsibilities, reporting to the Executive Director for Operations. We're giving him a solid staff of professionals. I can supply for the record, sir, the specific resources that perhaps you're interested in, but I can only assure you that there's a great deal of resources going into both TVA and Comanche Peak and have been for some time.

Senator **Stafford**. Thank you very much. I see Mr. Asselstine is raising his hand.

Mr. **Asselstine**. Yes, Senator Stafford. I think we're now devoting on the order of a little bit over 100 people just to those two licensees alone, TVA and Comanche Peak, plus a fair amount of contractual money to hire some experts to help us work on those two problems. It is a very major commitment for just those two licensees. I think one of the lessons we've learned over the past year and a half or so is that if you get into that kind of a situation, it becomes terribly resource-intensive, both by the licensee and by the NRC, to try and find our way out of those problems.

Senator **Stafford**. Thank you very much. My additional questions I'll send in writing.

Mr. **Zech**. Yes, sir. Thank you.

Senator **Breaux**. I'd like to recognize now my good friend and distinguished ranking Republican member, Senator Simpson.

OPENING STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM THE STATE OF WYOMING

Senator **Simpson**. Thank you, Mr. Chairman.

I want to apologize to you and our witnesses from TVA and the Commission; unavoidable conflict, the old one—I was at the White House—you've heard that one? Isn't that dazzling?

Anyway, I want to welcome you, Mr. Chairman, and just take a moment to do that. I've come to know you in my time in the Senate, and I will be very pleased to work with you in your capacity as the new chairman of this Subcommittee on Nuclear Regulation. I pledge to work very closely with you and your staff on these very difficult and emotional and highly-charged issues that we are required to deal with in this subcommittee, and in the tradition of bipartisan cooperation that I think has long characterized the work of the subcommittee—Gary Hart was chairman and I was ranking, and that changed, which was delightful for a time. I enjoyed that. And then with Jennings Randolph and with Bob Stafford and with Lloyd Bentsen—it's just the way this committee does operate. So we have our new members, and I welcome Harry Reid and John Warner on this side, and look forward to working with you, and I mean that sincerely. There's enough to do in this area without playing partisan or getting into fun and games, and there are plenty out there doing it so we don't have to do it; it just saves you a lot of strength.

Anyway, we have this additional jurisdictional responsibility of TVA, and I'm going to start boning up on that. I think there are some serious deficiencies with that organization, and we have to help them make some intelligent and responsible decisions. I have had the opportunity to visit with each one of these people on the NRC since my first days here, and I enjoy that relationship with this Commission and the staff. And I came to enjoy visiting with them periodically. They are a rather diverse group, and you will find that if you visit with them separately, a splendidly diverse group of people. There are things that could be done with regard to changes in the law that would make them function more as a collegial body or else go to a single administrator. Those are some things I have always spoken about.

So even though I sometimes get quite rambunctious, I very much look forward to hearing and working with them over the course of it as your ranking minority member, and we have a great deal to do and the issues that will come before us were not covered here today; and yet, we will address them again and again, and I look forward to that. I commend you on your chairmanship.

And with that, I do have a series of questions but—I assume 10 minutes, Mr. Chairman? Is that my allocation here? I could ask a couple and then——

Senator **Breaux**. You're doing such a good job, just go right ahead.

Senator **Simpson**. I do want, Mr. Chairman, to ask about user fees. That's something I've been watching. We had a conference committee last year on that, Ed Markey and many of us, and there's a divergence there.

I would ask if the Chairman could tell me where the Commission stands on implementing the authority to collect the 33 percent of your budget through user fees?

Mr. **Zech**. Yes, sir. In 1987, Senator Simpson, as you know, we have been directed to collect 33 percent of our fees from the user fee program. That program is in effect now. Essentially, we're collecting $950,000 under Part 171 from each reactor licensed to operate. We are doing that now. That money, as you know, is not going to our budget; it is going into the Treasury. I understand that, at the request of the Administration, and, I understand, apparently with the support of Congress, it has been suggested that our fiscal year 1988 budget increase those 33 percent user fees to 50 percent. In our authorization proposal we have done so, so our current fiscal year 1988 authorization request does indeed increase the user fees to 50 percent.

Senator **Simpson**. How many on the Commission have endorsed that legislation as submitted, to go to 50 percent?

Mr. **Zech**. In my view, the entire Commission has endorsed that. I have asked my colleagues to speak up if they have different views. They would have spoken up already, Mr. Simpson, if they were going to challenge that, so I think you can say it's the unanimous support of the Commission.

Senator **Simpson**. Let me just ask you this. If what I hear the Commission saying, that it cannot demonstrate that 33 percent of its budget is related to specific licensee actions—that surprises me, I think, especially when you consider that two-thirds of your budget would appear to be going to generic activities. As an agency that now regulates basically 107 commercial reactors, why is it so difficult to calculate what you spend on each reactor? It's sort of like when a lawyer keeps track of billable clients.

Mr. ZECH. If I may clarify my statement just a moment ago, Mr. Chairman, on the user fees. As far as the Commission is concerned—I think a number of us, anyway—we look at it this way. The user fee itself, we feel—at least I feel this way, and I think some of my colleagues do—it really is a decision for the Congress to make. We feel a little awkward, at least I do personally, saying that we should collect user fees from those who we license. There has to be some kind of a conflict there. I'm not exactly sure how to explain my concern, but it seems to me that we're in an awkward position doing that.

However, if we're directed by Congress to do so, which I understand we have been, then we set that aside and say, now we're going to carry out the will of Congress. Having done that, I do think it's the Commission's—I feel this way personally—I do think, then, it's the Commission's responsibility to participate in the methodology for collecting the fee.

Now, to get on to your question here at the moment, in this past year we collected—as I mentioned earlier—$950,000, or we are collecting in 1987, $950,000 per reactor unit under Part 171. I was frankly a little bit uncomfortable about that decision. On the other hand it was necessary, as I recall, by the direction of Congress for us to make an expedited decision. That was a decision that was at least understood very simply and could be applied quickly. We did that last year.

In the 1988 request, it's been my view—and I think supported by the majority of the Commission—that again, if we are directed by Congress to collect these fees, which we assume we have been and will be, then the user fee that we collect for 1988 should perhaps be based on something a little more fair to the licensee. My feeling is that the licensees should pay a fee somewhat commensurate with the NRC resources that we expend. For example, on the licensee that is performing exceptionally well and is perhaps getting a SALP-1 rating—that's a Systematic Assessment of Licensee Performance rating, put on by our regional and headquarters personnel—if he is performing well enough to be in that highest category, we have backed off somewhat on our inspections and focused our resources, which I think is appropriate, on those who aren't performing as well. Therefore it seems to me that if we're providing less services, essentially, to the well-performing plant, he should perhaps pay a little less than those who we are focusing on—for example, TVA and others that we're putting a lot of resources on.

So we don't have a formula yet, but we are attempting to come up with something in 1988 that will perhaps be a little more fair than the flat fee that we were applying in 1987.

Senator SIMPSON. All right.

Thank you, Mr. Chairman.

Senator BREAUX. Senator Reid?

Senator REID. Thank you very much, Mr. Chairman. I also appreciate the kind comments of Senator Simpson.

In 1984 the States of Nevada and Minnesota filed a petition for rulemaking to the NRC which proposed essentially two things: one, that institutional assurances be required of any eventual repository so as to reinforce, even conserve, quantitative radionuclied release prognostications; and, two, that the Nuclear Waste Policy Act's preliminary determination of site suitability provision be integrated in NRC regulations so as to better guarantee that the NRC will be able to adopt the environmental impact statement required by the act to be written by DOE.

Question: What action has been taken on the petition filed by Nevada and Minnesota? And what is your current position on these two individual proposals?

Mr. ZECH. Senator, I'm going to ask for some support on this question, on the specifics of it. Let me just say, though, very generally, to answer your question as far as the waste repository situation is concerned. We are working closely with DOE. Our responsibilities—as you know, DOE has the mandate to take the leadership in this area——

Senator REID. We'd rather you didn't work so closely with them.

Mr. ZECH. Well, let me say that we're working closely because of our technical responsibilities and our need to let them know ahead of time, or at least in a parallel effort if possible, if we think they're going off track. We are not involved in the selection of the site. We are trying to involve ourselves merely in the technical evaluations, and involve ourselves in public health and safety, which is our responsibility.

Senator REID. I don't mean to interrupt but I just have a little bit of time. Is there someone who can respond to that question?

Mr. ZECH. Yes.

Let me ask for some support on this one.

Mr. BELL. I'm Dr. Michael Bell——

Senator BREAUX. Would you come up to the microphone so we can hear you better?

Mr. BELL. I'm Dr. Michael Bell, Deputy Director of the Division of Nuclear Waste Management of the Office of Nuclear Material Safety and Safeguards.

In 1984, following the concurrence of the NRC on DOE's siting guidelines, an issue arose concerning the timing of the Department's preliminary determination of the suitability of three sites for characterization. The Commission revisited the issue of whether or not the timing of the preliminary determination affected its concurrence on the guidelines, reached the conclusion that this was basically a decision that the Nuclear Waste Policy Act gave to the Secretary of Energy, and published in the Federal Register a statement of its position on that matter. And we can supply that for the record.

Senator REID. I'd appreciate if you'd do that.

[The material referred to follows:]

[From the Federal Register Nov. 8, 1985]

STATEMENT ON NRC'S CONCURRENCE IN THE DEPARTMENT OF ENERGY'S GENERAL GUIDELINES FOR THE RECOMMENDATION OF SITES FOR NUCLEAR WASTE REPOSITORIES

Agency: Nuclear Regulatory Commission.
Actions: Statement on NRC Concurrence.

Summary: The United States Department of Energy ["DOE"] recently announced that it intends to make its preliminary determination on the suitability of potential nuclear waste repository sites before it conducts detailed site characterizations. This represents a change in the DOE's prior position. The NRC has reviewed its July 1984 concurrence in the DOE siting guidelines to determine whether, as a result of DOE's changed position, the Commission's concurrence decisions requires modification. The Commission has determined that DOE's change in position does not affect the Commission's concurrence in the DOE guidelines and that NRC's concurrence remains valid.

For Further Information Contact: Trip Rothschild, Office of the General Counsel, 1717 H Street, NW., Washington, DC 20555. (202) 634-1465.

Supplementary Information: The Nuclear Waste Policy Act of 1982 ("NWPA") directs the DOE to issue general guidelines for the recommendation of sites for high-level waste repositories. In carrying out this responsibility, DOE is required to obtain the concurrence of the Nuclear Regulatory Commission ("NRC" or "Commission"). On November 23, 1983, DOE submitted its proposed general guidelines to the NRC and requested the Commission's concurrences. The NRC issued a preliminary decision on March 14, 1984 (49 FR 9850) which set forth seven conditions for granting its concurrence. On July 3, 1984, the Commission concurred in the DOE guidelines after DOE had made changes addressing the Commission's concerns (49 FR 28130, July 10, 1984).

One of the issues addressed in NRC's concurrence decision was the timing of DOE's" preliminary determination" that three sites are suitable for development as repositories. Section 114(f) of the NWPA provides in pertinent part that:

For purposes of complying with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. 1321 et seq.) and this section, the Secretary [of Energy] shall consider as alternative sites for the first repository to be developed under this subtitle 3 candidate sites with respect to which (1) site characterization has been completed under section 113; and (2) the Secretary has made a preliminary determination that such sites are suitable *for development as repositories consistent with the guidelines promulgated under section 112(a).* (Emphasis added)

The NWPA does not provide specifically when this preliminary determination of suitability is to be made. However, the Commission in its concurrence decision asserted that:

(T)he Commission and DOE agreed that the preliminary determination required by section 114(f) of the NWPA should be made after the completion of site characterization and not at the time of site nomination and recommendation. The Commission and DOE therefore agree tha the last sentence of the first full paragraph in section 960-3-2-3 of Subpart B [of the DOE Guidelines] should be deleted.[1]

It is now clear that DOE intends to make the preliminary determination on site suitability at the time of nomination and recommendation of sites, before detailed site characterization has been conducted. See DOE's June 1985 Mission Plan and DOE's July 1985 Draft Project Decision Schedule. This raises the question whether NRC's concurrence statement of July 1984 requires modification.

The Commission has reviewed its July 1984 concurrence in the DOE guidelines and finds that it need not be modified. The Commission's agreement as expressed in its July 1984 statement was twofold. First, DOE and NRC agreed that the preliminary determination on site suitability would be made after site characterization, and second, the two agencies agreed to delete from the guidelines the only provision to the contrary in the guidelines. The two agencies did not decide, however, to insert into the guidelines any replacement language on the timing question, and therefore the guidelines do not address the issue. Thus, in changing its position on the timing of its preliminary determination. DOE did not modify or contravene the guidelines.

Moreover, the Commission's preliminary and final concurrence decisions expressly discuss various Commission preliminary and final "concurrence conditions." While the timing of the section 114(f) preliminary determination is discussed in the final concurrence decision, the agreement on timing is not listed as a "concurrence condition."

Under the circumstances, the Commission wishes to make clear that the DOE change in its position does not affect the Commission's concurrence in the DOE guidelines and that NRC's concurrence remains valid.

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[1] The deleted provision provided that the preliminary determination should be made when DOE recommends sites for characterization.

DISSENTING VIEWS OF COMMISSIONER ASSELSTINE

I disagree with the Commission's position that there is no need to modify the Commission's July 10, 1984 decision concerning in DOE's site selection guidelines in light of the Department's change in position regarding the timing of the preliminary determination of site suitability under section 114(f) of the Nuclear Waste Policy Act. At a minimum, I believe that the Commission should have directed DOE either to conform to the 1984 agreement on the timing of the preliminary determination or to submit for Commission concurrence a formal request to modify the site selection guidelines to incorporate DOE's new position on the timing of the preliminary determination. There are four relevant questions regarding the timing of the preliminary determination. First, was there an agreement between the Commission and DOE on the timing of the preliminary determination at the time of the Commission's concurrence in DOE's site selection guidelines? Second, was this agreement a condition of the Commission's concurrence in the site selection guidelines? Third, is the DOE's change in position on the timing of the preliminary determination a matter exclusively within DOE's program management discretion, or does the NRC have a regulatory interest in this matter as well? And finally, should the preliminary determination of site suitability be made before or after site characterization?

The first question arises because during the Commission's July 29, 1985 meeting with DOE to discuss the Department's mission plan for the high-level waste disposal program, the Department took the position that there had not been an agreement between DOE and NRC on the timing of the preliminary determination at the time of the Commission's concurrence in the site selection guidelines. DOE expressed the view that it had been the Department's position all along that the timing of the preliminary determination should be deferred until a later date. It is clear that there was an agreement in June 1984 between DOE and NRC that the preliminary determination should be made after rather than before site characterization. This agreement was stated in the Commission's July 10, 1984 decision which concurred in the DOE site selection gudielines. DOE did not object to the Commission's characterization of the agreement at that time. Moreover, the transcript of the Commission's discussions with DOE on the site selection guidelines on June 22, 1984 contains clear statements by DOE that the preliminary determination of site suitability should be made after completion of site characterization. During that meeting, DOE acknowledged the preliminary determination should be made after the site characterization because that is the point in time when enough data about the site is available to make the preliminary determination a meaningful statement. The transcripts of the June 22, 1984 Commission meeting as well as the Commission's July 10, 1984 concurrence decision clearly show that there was an agreement between DOE and NRC on the timing of the preliminary determination, and that the agreement was based upon a judgment that site characterization was necessary to obtain the technical information needed to support the preliminary determination of site suitability.

On the second question, it is also clear that the agreement between DOE and NRC on the timing of the preliminary determination was a condition of the Commission's concurrence in the DOE site selection guidelines. The majority places great weight on the fact that the Commission failed to label the agreement as a "concurrence condition" in the July 10, 1984 Commission decision, and did not insist that the agreement be written into the guidelines themselves. The fact remains, however, that the Commission included the agreement in the concurrence decision and required the removal from the guidelines of a statement calling for the preliminary determination to be made before site characterization. The context in which the Commission's concurrence decision was made further supports the interpretation that the agreement was a condition of concurrence. Despite all of the Commission's other conditions of concurrence, which had been published for comment, the affected states remained unanimously opposed to the DOE site selection guidelines. They argued that despite NRC's other proposed concurrence conditions, the site selection guidelines were too vague and failed to specify the type and amount of information needed to determine whether the guidelines were met. As the transcript of the Commission's June 22, 1984 meeting demonstrates, the unanimous opposition by the states to the guidelines was a matter of great concern to the Commission, and the agreement on the timing of the preliminary determination was the means chosen by the Commission to address these state concerns and permit Commission concurrence in the guidelines.

On the third question, the Commission has a direct regulatory interest in the timing of the preliminary determination and this is not a matter within DOE's exclusive discretion. The Commission's regulatory interests in this issue are threefold. First, the Commission has the statutory responsibility under the Nuclear Waste Policy Act to concur in the DOE site selection guidelines. The purpose of this concurrence responsibility is to provide an independent check of DOE's site screening and site selection process. As described above, the Commission determined that the preliminary determination should be made after rather than before site characterization to ensure an effective site selection process. The states pointed out flaws in DOE's site selection guidelines, and the Commission's decision on the timing of the preliminary determination was an attempt to compensate for these flaws.

Second, the Commission has a direct stake in ensuring that DOE's site selection process works effectively to identify good sites that have a high potential as candidates for repository development, and to screen out poor or marginal sites or sites with features that may make it difficult to demonstrate their suitability for repository development. In a very real sense, the quality of DOE's license application and the prospects for an efficient and successful licensing proceeding depend upon how well DOE does its job in selecting sites for characterization. We simply cannot afford to allow DOE to proceed with a weak or flawed site selection process that permits the selection of poor, marginal or unduly complex sites.

Third, the Commission has an independent legal responsibility under the National Environmental Policy Act to consider alternate sites for the repository in its licensing review of the DOE application. While the Nuclear Waste Policy Act puts some bounds on NRC's NEPA review, it does not discharge the Commission from its legal responsibility to consider alternate sites in making its license decision on the DOE application for the repository. Given these three regulatory interests, the timing of the preliminary determination is, both as a legal and a technical matter, and integral part of the Commission's licensing and safety responsibilities under the NWPA and NEPA.

On the fourth question, there are four reasons why the preliminary determination of site suitability should be made after rather than before site characterization. First DOE's current approach is legally impermissible under the Nuclear Waste Policy Act. While the statute is not entirely clear on the subject and while the legislative history is somewhat limited given the absence of a conference on the House and Senate bills. I believe that the better legal view is that DOE cannot make the preliminary determination before obtaining the detailed information about key site characteristics, including the geology, that will become available through site characterization.

Second, from a technical standpont, it makes no sense to make the preliminary determination of site suitability before site characterization. As the states have pointed out to the Commission, there is very limited information on many of these sites at the present time, particularly concerning geology and hydrology. Our technical staff has advised us that there are significant uncertainties about the key characteristics of each of these sites given the limited information that is available now. As a practical matter, this information is not sufficient to support a determination of site suitability for repository development.

Third, making the preliminary determination before site characterization thwarts the purpose of the statutory provision, which was to ensure the consideration of reasonable alternatives. By permitting one or two of the sites selected for characterization to drop out perhaps early in the site characterization process and by eliminating the requirement in such circumstances to examine other sites in detail before selecting the site for the first repository, the DOE approach in effect makes the consideration of alternate sites under NEPA a meaningless exercise.

Finally, making the preliminary determination after site characterization or at least after substantial site characterization work is done, strengthens the site selection process. It provides a strong incentive for DOE to select good potential sites and it assures that the site suitability determination considers the full range of relevant site characteristics, including geologic factors. Making the preliminary determination of site suitability before site characterization, as DOE proposes, will mean that some significant factors, such as the geology and hydrology of the site, will be given little weight due to the limited information available on these characteristics. This approach undermines the validity of the site selection process. For these four reasons, I believe that the preliminary determination of site suitability should be made after rather than before site characterization.

STATEMENT OF COMMISSIONER ZECH

I was not a Commissioner at the time of the June 22, 1984 meeting when some of the events which are discussed in the dissent occurred. Understandably, therefore, I am not in a position to comment on what transpired at the meeting. However, as I now see the situation, I am satisfied that the timing of the preliminary determination is largely a Department of Energy programmatic matter. I have not been advised of either a legal or a technical need for a concurrence in the adequacy of the siting guidelines to depend upon the timing of the preliminary determination. In my judgment the issues are separate and are not mutually dependent on each other.

Regardless of how one decides the issue of the timing of the preliminary determination, I am convinced that the Nuclear Regulatory Commission can and will carry out its independent licensing and regulatory responsibilities consistent with the responsibilities assigned to it under the Nuclear Waste Policy Act.

I therefore believe the Department of Energy's position on the timing of the preliminary determination is a programmatic and scheduling matter under that Department's cognizance. If this issue is to be resolved differently, then in my judgment this is the responsibility ultimately of Congress.

If the NRC has problems with the guidelines, these problems should be addressed directly and not indirectly by injecting itself in the Department's programmatic decisions. If there are significant problems in the guidelines they would remain no matter when the preliminary determination is made.

I am not aware of any significant problem which our technical staff has with the guidelines or of any valid reason why I should not concur in them. Accordingly, had I been a Commissioner when a majority concurred in the guidelines, I would have joined them, but would not have supported taking a position one way or the other on the timing of the Department's preliminary determination.

Dated at Washington, DC, this 5th day of November, 1985.

Senator REID. The Nuclear Regulatory Commission is now seeking Congressional appropriations from the Nuclear Waste Fund to support its evaluation of DOE's repository programs, both now—before licensing begins—and, I presume, during the licensing phase which will occur several years from now.

A well-funded NRC will, I believe, better assure a more critical evaluation of DOE's proposal, and I support your request in its general terms. But, Mr. Chairman, as you know, the other party which the statute gave an oversight role is the affected State; in the instance that I'm concerned with, Nevada. DOE's position all along has been that the State's program funding is subject to Federal good will, and that the Department's good will is limited when the States become critical of their benefactors, which Nevada has done.

First, what is your position regarding DOE's imposed funding limitations on the individual States? For example, do you find them inconsistent with the oversight role that the NRC and the States will provide?

And second, what institutional devices do you propose to avoid DOE's manipulation of your independent, critical evaluation of DOE's proposal in the licensing conflict?

Mr. ZECH. Regarding the answer to the first question, Senator Reid, I don't know that we have a position as far as DOE is concerned in their responsibilities and relationships to the States. Again, we are trying to stick to our own responsibilities as regards public health and safety and involve ourselves in the technical issues.

Senator REID. But I think my question is, in succinct form, can you really do that if you're not getting proper input from the State? Our contention is that we've been hamstrung by DOE to give you that proper input.

Mr. ZECH. Well, it's my understanding—and again, I'll perhaps call on my staff to support the statement because I want to make sure I'm giving you the best answer I can—it's my understanding that, as far as NRC is concerned, we do have a close working relationship with the States. We have met with them at Commission meetings on several occasions. Our staff is meeting with them frequently. I do not believe that we have a real problem with the States as far as NRC is concerned.

Senator REID. There's no question; that's true. But my point is that the States aren't able to give you the input that we desire. For example, the State of Nevada had to file suit to what we feel would fulfill the mandate of the law to allow the State to give proper input. And I'm not sure that we can settle it here today, but basically I would request a written response to the effect, do you feel that the States are giving you appropriate input so that you can make this independent decision?

Mr. ZECH. I'd be happy to supply a written response.

[The material requested follows:]

At the budget hearing before the Nuclear Regulatory Subcommittee held on February 18, 1987, Senator Reid requested a written response on whether NRC feels that the states affected under the Nuclear Waste Policy Act are providing NRC with appropriate input so that NRC can make an independent decision on a license application for a nuclear waste repository submitted by DOE.

NRC considers States' comments thus far on the repository program to have been appropriate input to the NRC's efforts for early identification of licensing issues. In preparing to review a license application, NRC considers information from numerous sources including DOE analyses, NRC contractor evaluations, States, Indian Tribes, and public interest groups. NRC has benefited in the past from interactions with the States on the repository program and looks forward to continued meaningful interaction.

Senator REID. I see a couple of hands there.

Mr. BERNTHAL. Senator Reid, I agree with the Chairman that this is an issue that primarily should be settled by DOE and by the Congress as to whether additional funding should be supplied to the States. I would just recall, however, that this committee—and, I believe, the Congress—a few years ago did react negatively to the issue of whether the Government—in this case, I believe it was the NRC—should supply funding directly to intervenors for the purpose of bringing their case before the Commission. And I would just note that although the parallels are not exact in this case I agree with the Chairman—it is not an issue for the NRC to decide. There was, however, that philosophical decision on the broad question of direct funding of intervenors that was made some years ago. I hasten to add, though, that that's not an exact parallel to the case that you're describing.

Senator REID. Mr. Asselstine?

Mr. ASSELSTINE. Senator Reid, I think that we do have a stake in this. If there's one thing clear about the Nuclear Waste Policy Act, it is that the potential host States were to be active and equal participants in this process and that they were to be provided the funding necessary to carry out that role, both in terms of dealing with the Department of Energy and in terms of dealing with the Nuclear Regulatory Commission. So I think that we do have a stake in assuring that the States have the resources and the capabilities to carry out their role in this process.

I think so far, the affected States have been very active and responsible participants and are part of the process in dealing with us. On the Nuclear Regulatory Commission funding question, we've just received advice from the Department of Justice that legislation is not needed to ensure that all of our costs for carrying out our licensing responsibilities of the repository are funded or reimbursed from the Nuclear Waste Fund. The Department of Justice has concluded that we have an obligation to carry out our licensing responsibilities and that the Department of Energy has an obligation to reimburse us—or reimburse the Treasury—for the expenditures that we make in carrying out those responsibilities.

I think we ought to be able to resolve that question fairly quickly and easily and without the need for legislation through an agreement with the Department of Energy that they will simply reimburse us for the costs of carrying out our portion of the licensing responsibilities. So I think on that issue, that problem should be well on its way to a solution.

Senator REID. Mr. Chairman, I do have some other questions. I will submit those in writing.

Senator BREAUX. We're going to have another round, if you can stay.

Senator REID. I've got another meeting to go to.

Mr. Chairman, the problem with submitting questions in writing is that the responses are not always timely, could we set a couple of weeks deadline?

Senator BREAUX. I think that the Commission is going to be able to respond in a timely fashion, and if you just indicate that we need them in an ASAP mode, I think they'll get them up here.

Senator REID. Thank you, Mr. Chairman.

Senator BREAUX. The Senator from New York, Senator Moynihan.

Senator MOYNIHAN. Mr. Chairman, I have to report with great regret that the Senate Select Committee on Intelligence has spent the last eight years trying to find out what the word "timely" means when someone is requested to report "in a timely fashion." It's up to 14 months at this point, and has not yet expired.

Sir, I'd like to continue a line of questioning that my friend from Nevada has begun, the question of States and their relations, in this case with respect to emergency planning.

And to thank you, Mr. Chairman, for announcing that you're going to hold hearings on this troubled subject; a subject which this distinguished Commission will most immediately associate with Three Mile Island and the hearings that were held by Senator Hart, who was the distinguished predecessor of our present Chairman. Hearings were held on what went wrong there, and what would you have done had it gotten worse and not been arrested as was—thank God—the case.

In the aftermath of that we set some standards on roads, on evacuation plans, basically—I suppose "evacuation" is as good a word as any; probably there is a better word that ought to be got. It's not quite "all hands abandon ship" and it's not quite evacuating people from a suddenly endangered area, but it's a dispersal plan of some kind.

Senator BREAUX. Reassignment.

Senator MOYNIHAN. Reassignment, says the Chairman.

But there is no question but that this is part of any orderly emergency drill; and of course, as the Commission knows and the Chairman knows, and my distinguished previous chairman, who isn't here, the issue has arisen about local cooperation. I understand that there's a balance to be reached here, in the sense that there's a national policy to provide nuclear power, at some level to encourage it, then there ought to be some resistance to local policies which override that national policy, if that is the case.

On the other hand, it seems to me elemental that you cannot have an emergency plan that does not assume the cooperation of local governments and State governments. Police power resides with the States and their subdivisions. The 10th Amendment so decrees—an amendment not much in use or in vogue in the last century, perhaps, but still, it's there. And we can even resort to the original intent if it comes to that, I suppose.

But in any event, I have to say, on the first day of this Congress, in the context of the difficulty we're having in Long Island with the Shoreham plant, where the geography is such that evacuation is particulary difficult—dispersal—for reasons the Commissioners well know—it's on an island, surrounded by water, and the only way to get out of any particular zone would be to move westward where you'd be moving into very dense urban settings, and so forth.

Mr. Chairman, the problem with this plant is that it's been put in the wrong place. You can't evacuate from this site, and we're not going to even try to pretend. I put in a bill, S. 40, the first day of this session speaking to this matter, and then I was surprised, Mr. Chairman, to find that on February 6th, the day after the matter leaked to the press, the Commission issued a rulemaking—well, under the heading of a rulemaking issue, you were contemplating a rule—that basically would override the State and local authorities in these matters and say, you can set up your own evacuation plan if you can't get one out of the local government. And that startles me. I hope we've had a good relationship in 10 years on this committee with this Commission, but what are you doing? Anybody who can help me, raise your hand.

Mr. Zech. Yes, sir. I'd be pleased to try, Mr. Moynihan.

First of all, let me say that—I can only speak generically——

Senator Moynihan. Generically, of course. You can't speak to a licensing problem.

Mr. Zech. Yes. I can't get into any specific——

Senator Moynihan. And I mean to speak to the 10th Amendment and the whole question in the context that Senator Reid spoke about this.

Mr. Zech. Right. But speaking generically, when the Commission in 1980—after Three Mile Island, as you say— did indeed modify and strengthen its emergency planning program, it was the sense of the Commission, as I reviewed what took place at that time, that States and local communities would cooperate.

Now, there were public comments at that time——

Senator Moynihan. Could I interrupt you here?

Mr. Zech. Please.

Senator Moynihan. You said it was the "sense" of the Commission. Did you mean it was the expectation?

Mr. Zech. Yes.

Senator Moynihan. You assumed cooperation?

Mr. Zech. Yes. The Commission assumed at that time, even though there were public comments that cautioned the fact that perhaps States sometimes may not cooperate, the Commission apparently assumed—none of us that are sitting here at the table today were there at this time—but the Commission, as I understand it, apparently assumed or expected that the States would indeed cooperate. And they have in general, for a number of years.

Now, recently, we find that it is a problem, and some of the States are deciding that they do not want to participate in the emergency drill and the emergency procedures. Therefore, the problem that is facing us and is facing others, what do we do about it?

Well, in our Commission regulations, as I understand it, we have—it could be stated, perhaps, given some of our responsibilities, perhaps inadvertently, for public health and safety, which the Congress has given this Commission—perhaps we have given some of those responsibilities to others. We wonder, is that proper?

Now, we're trying to face this issue head-on at the Commission. It's a very difficult issue. We don't want to dodge it. In my view, it's a responsible action to take. I'm sure we're going to get a lot of comments, a lot of advice, a lot of suggestions, and we'll listen to them. But the issue must be faced: is it proper and appropriate to have a plant that at least was supported for a number of years by the State and local authorities, in its building program, now at the stage where it's ready to operate—is it proper to have the State, through exercising its part in the emergency planning—not that the plant isn't perhaps built, and we don't know that for sure, but if it is, generically, I'm talking—if all the safety programs have been met, perhaps, and if there's nothing left to discuss but emergency planning, is it appropriate for the Commission? Are we exercising our responsibilities by allowing the plant not to operate when we perhaps would view that the public health and safety could be protected? We haven't made that decision yet. Please note that I'm speaking generically; I'm trying to answer as close as I can.

Senator Moynihan. Yes, very clearly.

Mr. Zech. So I just don't know the answer. I just feel, though, that if our regulations have perhaps inadvertently, through a former Commission's assumptions or expectations—if perhaps those expectations are now changed, should not this Commission face this issue and say, should we do something about it or not?

Senator Moynihan. All right, sir. Could I make this suggestion to you? And I'll speak to the Chairman, as well.

This is not an issue to be resolved in a rulemaking process. This is an issue to be resolved with the Congress, which is your friend, and the body which has created you. We're talking about constitutional questions.

The assumption in 1980 of cooperation was an assumption that the States would exercise their police powers and their responsibilities, but that contemplated the possibility that, in the exercise of their responsibilities, they would say, "This can't be done. You can't do it here. Do it over there. But we're telling you, we looked at it; sorry, you can't do this here." In which event, the answer is not to override the States, I wouldn't think—Commissioner, you seem to be nodding?

Mr. **Asselstine**. Senator Moynihan, I basically agree with that. I think it's important to recognize that the Commission's emergency planning regulations began with legislation which originated in this committee.

Senator **Moynihan**. Yes, sir.

Mr. **Asselstine**. And what the Congress told the Commission was, "You decide what requirements are necessary to protect the public health and safety on emergency planning. You develop regulations that provide for the protection of the public health and safety in emergency planning." And the Commission did that.

One of the concerns that I have about this proposal is that it would weaken the safety requirements that the Commission adopted in order to deal with a few specific cases. And my own view at this point, I think, is that I think that's unwise for the Commission to do. I think the Commission set standards for what it believed was necessary to ensure the protection of the public health and safety, and those standards said that you have to be able to demonstrate that whatever emergency planning arrangements are in place, they will provide sufficient protection or reasonable assurance that adequate measures can and will be taken in the event of an emergency. It's that simple.

Senator **Moynihan**. Well, I don't want to persist, Mr. Chairman; I know you have to get through the day—but if you're going to persist in your rulemaking, and think that you can do it without the States, you're going to have to come to this committee and ask for a police force. I mean, who is goint to direct traffic? Who is going to do all those things that have to be done in an emergency?

Mr. **Zech**. Well, let me just say to that, Senator Moynihan, first of all, public health and safety is our business. And no matter what happens to the rulemaking or anything else, this Commission, I feel confident, is not going to authorize any plant to operate if we are concerned that the public health and safety will not be protected. That's fundamental.

Now, who will direct traffic? Frankly, it has been the decision of the majority of us on the Commission that we feel—and I feel very strongly about that—that if there were a real emergency in the future, around our country, anywhere, that our State and local officials would indeed carry out their responsibilities to the people of their State and their community. So when they tell us that they're not going to participate or they're not going to do it, I must say, I question whether they would really do that if we had a natural catastrophe of any kind—flooding, fire, earthquake, whatever. I think our State and local governments would carry out their fundamental protection of the public.

And so when you say, you know, you would have to get a police force, I understand, and perhaps you're right; but it seems to me that if the States did have a capacity of any kind, that the Governor and the responsible officials would indeed carry out their responsibilities to their people.

Senator **Moynihan**. If I can just say, sir, we really do have to have the hearing that the Chairman referred to because there's something that causes unease when you say, "Well, if the balloon goes up they'll do the right thing, because how could they not?" I would answer, what if they don't know what the right thing is? They've never had lifeboat drill. I may not tell an Admiral that you don't instinctively know what to do when the ship hits an iceberg. You're supposed to have gone through that drill beforehand so you don't have to think; you act.

Senator BREAUX. Obviously the Senator has raised a very important point, one that deserves the complete and full attention of this subcommittee, which the Chair has indicated this morning we will give it. It's a subject that should be dealt with quickly. It should be dealt with in detail, and Senator Moynihan has brought it up very eloquently and this committee will pursue it. I intend to do that, probably, at the authorization hearings, which will be a high priority. We want this Commission to be prepared to address it in detail and to come up with some recommendations as to how we ought to solve the problem. We know there's a problem; we're looking for a solution, and the Commission should be part of that solution.

Senator MOYNIHAN. Mr. Chairman, I thank you very much for that statement.

Senator BREAUX. Let's see if Senator Simpson has any questions.

Senator SIMPSON. No, I don't, because I know it will be an exciting hearing when we get to it. But as Senator Moynihan remembers so well, when we visited with the Governor, you were an excellent liaison with those people at Shoreham. But in our revisitation we have to remember that when Senator Hart was chairman and I was ranking, that we did put something on the statute books, and we had best either change that or revisit the issue because the hostage question was so clear to all of us, that that's the reason we put in the language about the utility plan. So I'm ready to revisit that and see where we go, but indeed, we have not disregarded it from a congressional standpoint at all.

Senator BREAUX. Well, those are the questions and the points that need to be made at the hearing. We will do that and welcome you at that time.

I have no additional questions at this point but we may have some in writing that we would like to submit to the Commission and hope that they would, in a timely fashion, as Senator Moynihan has pointed out, respond to the committee members.

With that, the subcommittee this morning has completed our hearings. The subcommittee will stand adjourned until further call of the Chair.

[Whereupon, at 11:25 a.m., the hearing was adjourned.]

[Mr. Zech's statement, responses from the Nuclear Regulatory Commission to additional questions, and statements from agencies not appearing at the hearings follow:]

PREPARED TESTIMONY

SUBMITTED BY

UNITED STATES NUCLEAR REGULATORY COMMISSION

TO

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

CONCERNING

THE FY 1988 BUDGET REQUEST

PRESENTED BY

LANDO W. ZECH, JR.

CHAIRMAN

SUBMITTED: FEBRUARY 18, 1987

U.S. Nuclear Regulatory Commission
FY 1988 Budget Testimony

Mr. Chairman and members of the Committee, the Commission appears before you today to discuss NRC's FY 1988 Budget Request. With me today are my fellow Commissioners, the Executive Director for Operations, the General Counsel and the principal office directors.

Overview

The Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974 assign the Nuclear Regulatory Commission important responsibilities. These responsibilities include assuring that the benefits of the peaceful use of nuclear energy are provided to our fellow citizens in such a way that the public health and safety and the environment will be protected and that the common defense and security are not compromised.

The Commission believes that sound and credible federal safety regulation is an important component in assuring the continuing safe use of commercial nuclear power. We at the NRC intend to continue to pursue a policy of firm and fair regulation of the nuclear industry.

Public confidence in nuclear power was shaken by the TMI accident. The Chernobyl accident has exacerbated the situation. We believe there are serious challenges today in order for our fellow citizens to continue to receive the benefits of nuclear power. We at the NRC are structuring our programs to meet these challenges. Congressional support in providing us the needed resources is an essential factor in attaining success.

While there may be challenges, we believe it is important to recognize that commercial nuclear energy, for more than twenty years, has been making an important contribution to our nation's electrical needs and, with continued emphasis on safety, will be able to contribute to our nation's future energy needs. The Nuclear Regulatory Commission is composed of many dedicated and competent professionals who can be counted on to perform with integrity, candor, technical competence and with the very strongest commitment to safety in the service of the American people. With your continued support, Mr. Chairman, I believe the American people will continue to be very well served by the NRC.

The NRC's FY 1988 budget request and FY 1989 budget estimate reflect our commitments towards ensuring the continued safe operation of the 107 licensed nuclear power plants as well as the quality construction of those plants remaining to be brought on-line. Additionally, our commitments involve protecting the public from risks associated with the widespread use of nuclear materials under approximately 9,000 nuclear materials licenses; ensuring the safe transportation, storage and disposal of nuclear waste; providing appropriate safeguards for facilities and materials; establishing a more predictable and stable regulatory environment; encouraging nuclear power plant standardization; providing resources for essential safety research; managing agency resources more effectively and efficiently; and consolidating NRC headquarters' offices.

The NRC budget request for FY 1988 is for $427.8 million and 3250 full time equivalent (FTE) staff. Our FY 1989 budget estimate is $422.6 million and 3,180 FTE. This budget shows our plan to reduce FTE allocations by about 10 percent from the FY 1986 level. It also reflects essentially the same funding level as we have in FY 1987 plus a small increase primarily needed for essential safety research, oversight for the increasing number of operating reactors, and the materials inspection program. It also provides funds for consolidating the majority of our Washington, D.C., headquarters staff into one building located in Rockville, Maryland.

This is a straightforward, responsible budget -- one that we believe contains the resources needed to fulfill our responsibilities. The Commission recognizes and is supportive of the need for budget austerity, and we have initiated actions to become more productive and to reduce resources. My fellow Commissioners and I strongly urge that you provide us with the resources we need to meet our regulatory responsibilities.

Two specific examples of our efforts to become more productive and efficient in use of the public's resources are building consolidation and reorganization.

We are finally able to begin consolidating our headquarters' offices after more than 10 years of operations dispersed among ten different buildings around the Washington, DC area. The General Services Administration has purchased an 18-story office building and signed an agreement to lease space in an adjacent building, scheduled for construction within about three years. This will permit full headquarters consolidation in Rockville. We have worked diligently on this endeavor and are committed to its success.

The Congress has repeatedly supported our efforts to consolidate our headquarters employees. We believe the benefits the agency will derive from consolidation, in terms of increased efficiency and effectiveness, will be permanent and will have a positive effect on our ability to protect the public health and safety.

Additionally, I have initiated, with Commission support, a major agency reorganization. The reorganization will comply with current statutes. No legislation is necessary. The purpose of the proposed reorganization is to better accommodate the changed nature of the agency's responsibilities and workload through a more effective and efficient organizational structure. The responsibilities of the Nuclear Regulatory Commission have shifted from evaluation of construction permit and operating license applications to the regulation of a maturing operational industry. For example, in 1975, when the NRC was formed, there were 52 plants licensed to operate, 69 plants under construction and 75 applications for construction permits under review. Today, there are 107 plants licensed to operate, 18 plants under construction and no applications for construction permits. As the plants presently being built are completed, the NRC will have progressively less regulatory involvement with large complex construction activities and considerably more involvement with plant operations, maintenance, life extension and similar issues. Up to this point, however, the structure of the agency has not evolved to reflect this shift in responsibilities, and the need for both different and differently deployed resources. Our current reorganization initiative is an attempt to more properly reflect our responsibilities as we see them today and into the 1990's.

The basic reorganization structure and many of the senior managers have been recently approved by the Commission. The reorganization will become effective later this year. The Commission expects that some reprogramming may be necessary as a result of the reorganization for FY 1987, but this would be accomplished within the resource level authorized by the Congress. For fiscal years 1988 and 1989, the Commission will be submitting revised budget information which reflects the reorganization. As is the case for FY 1987, the revisions will be accomplished within the resource levels in the current FY 1988 request and FY 1989 estimate.

In the new organization, the Office of Nuclear Reactor Regulation (NRR) will be responsible and accountable for licensing, inspection and safeguards programs for reactors. The Office of Nuclear Materials Safety and Safeguards (NMSS) will have a parallel responsibility and accountability for non-reactor safety programs, including nuclear waste management.

This approach will provide the managers of our programs greater capabilities to address, analyze and resolve operational safety issues. Previously, several offices might have been involved with a single operational safety issue. Under the new reorganization, responsibility, authority and accountability will be more focused.

Under the new organization, the Office of International Programs and the Office of State Programs will become Commission-level offices rather than staff offices. This action reflects the importance that the Commission assigns to enhanced communications internationally and with states, local communities and Indian tribes. They will report to the Commission through the new Office of Government and Public Affairs. Additionally, the new office will include the functions of the present Office of Public Affairs and the Office of Congressional Affairs.

Another feature of the reorganization is to increase the responsibilities of the Office of Nuclear Regulatory Research. The Office of Nuclear Regulatory Research will now be responsible for resolution of generic safety issues, including unresolved safety issues, and for the review of full-scope probabilistic risk assessments. These assignments are intended to bring about a closer tie between research and other agency safety programs. The recommendations of the recent National Academy of Sciences' report are under review by the Commission. We anticipate taking actions in response to the recommendations in the near future.

The NRC research program is needed to provide us with sound technical information that we must have to deal effectively with complex technical issues. Between fiscal years 1981 and 1987, research funds have been reduced by more than 50 percent. The completion of large research projects and joint programs with other parties have helped mitigate the effect of these reductions. However, the Commission is concerned that our capability to deal with future nuclear power plant problems will be greatly impaired by continued erosion of our research program funding. Without the safety information provided by our research program to support the resolution of complex technical issues, we could be forced to shut down some operating facilities or delay licensing others. Either situation could impose significant costs on the public and the nuclear industry.

The NRC will continue to rely on industry to conduct programs supportive of the agency's regulatory programs. Some significant examples of current industry programs include: reassessment of Babcock and Wilcox-designed reactors; accreditation of training for reactor personnel; industry degraded core rulemaking review; reactor construction and operations assessments including events evaluations; readiness reviews; owner's group efforts on technical issues; plant specific probabilistic risk assessments; and centralized training of plant personnel for piping examination.

The Commission believes that it is important to increase the regulatory stability and predictability of our regulatory process. The Commission is currently reviewing a legislative proposal to improve the reactor licensing process.

Additionally, NRC is acting to effect improvements in nuclear regulation where it is within our existing authority to do so. The Commission believes that the future of the industry would be best served by adoption of standardized plant designs. Standardization can bring about improvements in design, construction, operation, maintenance and training, as well as in plant performance and management. Standardization should take into account the lessons the NRC has learned in almost three decades of development of commercial nuclear power. It could improve both licensing schedules and plant operational safety. Although we believe that legislation would be highly desirable, the Commission is developing a policy statement which will emphasize the Commission's expectations that future reactor designs be standardized.

The appendix to our testimony summarizes the agency's budget request by major budget categories. I will briefly summarize each program.

Program Summary

Reactor Regulation

The overall resources for our reactor regulatory program will be about the same in FY 1988 as they are in FY 1987. However, the mix of in-house staff and technical assistance funding will change, and there will be some adjustments within the program as the nature of the workload shifts from license reviews to maintaining operating nuclear power plants.

We are providing for a higher level of review of some plants identified as needing increased regulatory attention and evaluations of unanticipated reactor events. These activities have required significant agency resources and management attention. For example, our efforts related to TVA plants and Comanche Peak, as well as evaluating operational events, will continue to require application of our staff and contractor resources to review safety and licensee management issues.

We will continue to conduct an active reactor operator license examination program, resolve safety issues, implement policies on severe accidents and safety goals, and review advanced reactor concepts now being evaluated by the Department of Energy.

Nuclear Material Safety and Safeguards

The Nuclear Material Safety and Safeguards programs have been adjusted in response to the additional responsibilities assigned to the NRC by the Low Level Radioactive Waste Policy Act of 1980, as amended in 1985, and the Nuclear Waste Policy Act of 1982. Most importantly, NRC must: ensure that appropriate regulations exist for both NRC and state licensing of low-level waste disposal sites; be prepared to provide technical assistance to states in reaching decisions on such disposal sites; and be prepared to license both a monitored retrievable storage facility, if authorized by Congress, and the high level waste repository.

Other essential efforts in FY 1988 include the completion of licensing reviews for several thousand byproduct, source and special nuclear material licensees, and the conduct of a comprehensive safeguards program designed to protect against risks from theft, diversion or sabotage, at licensed facilities and during transport of nuclear materials.

Funding for our Nuclear Material Safety and Safeguards program will be about the same in FY 1988 as it is in FY 1987.

Inspection and Enforcement

The Inspection and Enforcement Program will continue to emphasize on-site inspection of reactors. At least two resident inspectors are assigned to almost all reactor sites. This means that about 160 NRC personnel are stationed on-site to observe, evaluate and report on the adequacy of licensee nuclear safety activities on a day-to-day basis. Their efforts are augmented by region-based inspectors and technical contractors who conduct a variety of highly specialized inspections designed to achieve an indepth perspective on licensee power plant safety.

Management has been concentrating on improving the effectiveness and efficiency of the reactor inspection effort. Programs are being developed to improve the methods and information used to focus inspection attention on particular plants and systems which are most prone to problems and on new inspection approaches. Event assessments, inspection appraisals, operational data, probability risk assessments and performance indicators will be used to determine where resources are most needed. Additional diagnostic team inspections will examine the functioning of components and systems. In addition, the safety impact of major plant modifications will be conducted to evaluate performance and require safety improvements where needed.

Finally, the Commission has not neglected its inspection program for the approximately 9,000 materials licensees. It is in the area in which the average citizen is most likely to come in contact with licensed nuclear materials. The proposed budget provides additional resources to improve the oversight of NRC's materials licensees.

All of the above functions and responsibilities will be carried over to the new organization. Inspection responsibilities will be assigned to NRR and NMSS. Enforcement responsibilities will be assigned to a new office reporting to a Deputy Executive Director for Operations.

Research

In FY 1988, the major emphasis of the NRC research program will continue to be the early identification and resolution of operational safety issues. Examples of these operational safety issues are corrosion in piping vessels, radiation embrittlement of reactor vessels, defective valves and relays in safety systems, inadequate means for detecting and characterizing flaws in critical components, steam generator degradation in pressurized water reactors, cracked piping in boiling water reactors, temporary loss of feedwater at the Davis-Besse plant, and power loss to the Integrated Control System at the Rancho Seco plant.

Our research program is providing the technical information to resolve many operational safety questions. This includes the evaluation of: aging of reactor equipment such as piping, valves, relays and steam generators; degraded materials due to corrosion, radiation embrittlement and fatigue; inservice inspection methods to detect flaws and cracks in pipes; complex reactor coolant accidents and events; the transport and release of radioactive material during postulated reactor accidents; and earthquake hazards and their effects on operating plants.

The NRC research efforts planned for FY 1988 will also contribute to the technical basis the NRC needs to evaluate independently the adequacy of programs and information being developed by the Department of Energy necessary to license geologic repositories for the disposal of high-level radioactive waste.

The small funding increase for our research program will provide resources for: the construction, testing and initial operations of the thermal hydraulic test facilities which will provide information on which to base future regulatory actions; selective experimentation and testing of various aspects of a high-level waste repository to validate performance assessment models to be used in the regulatory process and in licensing evaluation; and evaluations of alternatives to the presently used shallow land burial for disposal of low-level waste.

The Commission believes it mutually beneficial to expand, as practicable, the cooperative efforts between the NRC and the various industry organizations involved in nuclear safety research -- EPRI, Owner's Groups, vendors and other government agencies performing related work. Where cooperation is appropriate, we believe our efforts will have a broader level of exposure, potentially better peer review and a greater level of acceptance. Also by spreading costs, cooperative research can be done in a more cost-efficient way.

The Office of Nuclear Regulatory Research also has numerous bilateral and multilateral agreements which include most of the free world foreign countries involved in nuclear safety research. In many cases, these agreements result in an influx of money from those countries to our programs as well as a beneficial exchange of information on nuclear safety issues.

Conclusion

The details of our budget request are contained in our submission, which has already been provided to the Committee.

In closing, we want to reemphasize the Commission's belief that our FY 1988 budget request is a straightforward and responsible budget. It contains the resources that we believe are necessary for us to meet our regulatory responsibilities for protection of public health and safety in the civilian use of nuclear materials. We urge your strong support for the full amount of our request.

APPENDIX

BUDGET RESOURCE SUMMARY[1/]

PROGRAMS	FY 1987		FY 1988		FY 1989	
	FTE	$	FTE	$	FTE	$
Nuclear Reactor Regulation	686	80.8	655	83.5	635	81.0
Nuclear Mat'l Safety and Safeguards	363	40.4	344	41.2	337	40.0
Inspection and Enforcement	1,136	100.6	1,114	104.9	1,088	98.9
Nuclear Regulatory Research	180	111.7	172	119.7	172	125.3
Program Technical Support	357	33.7	334	34.1	323	33.7
Program Direction and Adm	647	43.1	631	44.4	625	43.7
	3,369	410.3	3,250	427.8	3,180	422.6

[1/] Dollars are expressed in millions.

QUESTION 1. Please contrast the FY 88 request with the FY 87 request and the appropriated level. What effect will proposed increases or reductions have on agency programs?

(a) For which programs will funding be increased? Decreased?

ANSWER

FUNDING
(Dollars in millions

Program	FY 87 Estimate[1]	FY 88 Estimate	Change
Nuclear Reactor Regulation	$80.8	$83.5	$ +2.7
Nuclear Material Safety and Safeguards	40.4	41.2	+0.8
Inspection and Enforcement	100.6	104.9	+4.3
Nuclear Regulatory Research	111.7	119.7	+8.0
Program Technical Support	33.7	34.1	+0.4
Program Direction and Administration	43.1	44.4	+1.3
TOTAL	$410.3	$427.8	$+17.5

Nuclear Reactor Regulation

The overall resources for our reactor regulatory program will be about the same in FY 1988 as they are in FY 1987. However, the mix of in-house staff and program support funding will change, and there will be some adjustments within the program as the nature of the workload shifts from conducting reviews for operating licenses to maintaining regulatory oversight for a growing population of operating nuclear power plants.

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[1] Represents obligational authority, which includes the NRC $401 million appropriation for FY 1987, plus $9.3 million prior year carryover.

Additional resources will be applied to technically evaluate changes to existing reactor licenses, to examine and license reactor operators, to resolve reactor safety issues, and to implement the Commission's Severe Accident Policy. These increases are partially offset by funding decreases associated with advanced reactor concepts work and a declining number of applicants for reactor operating licenses.

NRC is also providing for a higher level of review of some plants identified as needing increased regulatory attention, and evaluations of unanticipated reactor events. These activities require significant agency resources and management attention. For example, NRC efforts related to TVA plants and Comanche Peak, as well as evaluating operational events, will continue to require application of our staff and contractor resources to review safety and licensee management issues.

Nuclear Material Safety and Safeguards

Program support funding for our Nuclear Material Safety and Safeguards program will be about the same in FY 1988 as it is in FY 1987.

The Nuclear Material Safety and Safeguards programs have been adjusted in response to the additional responsibilities assigned to the NRC by the Low Level Radioactive Waste Policy Act of 1980, as amended in 1985, and the Nuclear Waste Policy Act of 1982. Most importantly, NRC must: ensure that appropriate regulations exist for both NRC and state licensing of low-level waste disposal sites; be prepared to provide technical assistance to states in reaching decisions on such disposal sites; and be prepared to license both a monitored retrievable storage facility, if authorized by Congress, and the high level waste repository.

Inspection and Enforcement

The agency continues to improve the effectiveness and efficiency of the reactor inspection effort. Programs are being developed to improve the methods and information used to focus inspections on particular plants and systems which are most prone to problems and on new inspection approaches. To determine where resources are most needed, the NRC will consider event assessments, inspection appraisals, operational data, probability risk assessments and performance indicators.

Additional resources are being applied to conduct specialized inspections at operating reactors, upgrade NRC's incident response capability, respond to unanticipated reactor problems that are expected to occur in an industry of this size, and provide additional technical training for inspectors. The proposed budget also provides an increase to the inspection program for NRC's materials licensees. It is this area that the average citizen is most likely to come in contact with licensed nuclear materials. NRC regulates approximately 9,000 materials licensees.

Nuclear Regulatory Research

The NRC research program is needed to provide us with sound technical information that we must have to deal effectively with complex technical issues. In FY 1988, the major emphasis of the NRC research program will continue to be the early identification and resolution of operational safety issues. Examples of these operational safety issues are corrosion in piping, radiation embrittlement of reactor vessels, defective valves and relays in safety systems, inadequate means for detecting and characterizing flaws in cracked piping in boiling water reactors, temporary loss of feedwater at the Davis-Besse plant, and power loss to the Integrated Control System at the Rancho Seco plant. The program support funding increase for our research program will provide resources for: the construction, testing and initial operations of the thermal hydraulic test facilities which will provide continuing experimental capability for information on which to base future regulatory actions; selective experimentation and testing of various aspects of a high-level waste repository to validate performance assessment models to be used in the regulatory process and in licensing evaluation; and evaluations of alternatives to the presently used shallow land burial for disposal of low-level waste.

(b) What new agency initiatives will be undertaken? Which existing agency programs will be terminated?

ANSWER.

New Initiatives

The NRC's research budget includes funding for the construction and testing of thermal hydraulic test facilities at the Idaho National Engineering Laboratory which initially will be used to gather data on the performance of Babcock & Wilcox (B&W) designed reactor safety systems under a wide range of accidents. These facilities will provide: (1) a testing capability that is not available in the B&W Multiloop Integral System Test facility; and (2) information on which to base future regulatory actions.

Programs Terminated

There are no existing NRC programs that will be terminated based on the NRC's FY 1988 budget request.

(c) To what extent will the FY 88 request enable the NRC to fulfill its statutory responsibility, in a timely manner, to protect the public health and safety?

ANSWER.

The NRC budget request for FY 1988 is for $427.8 million and 3250 full time equivalent (FTE) staff. It reflects essentially the same level of funding as we have in FY 1987 plus a small increase primarily needed for essential safety research, oversight for the increasing number of operating reactors and the materials inspection program. It also provides funds for consolidating the majority of our Washington, DC headquarters staff in one building located in Rockville, Maryland. The Commission believes that our FY 1988 budget request is straightforward and responsible and that it contains the resources that NRC needs to fulfill our regulatory responsibilities for protection of public health and safety in the civilian use of nuclear materials.

QUESTION 2. What personnel increases or decreases, including the staff levels and funds for salaries and benefits, are being proposed in FY88 compared with FY87 levels? Please describe the extent to which any increases or decreases in the agency's budget request reflect pay raises or increased contributions for employee retirement.

ANSWER.

The following staffing changes, all decreases, are being proposed in FY 1988 compared with FY 1987 levels:

Program	Staffing FY 1987	 FY 1988	 Change
Nuclear Reactor Regulation	686	655	-31
Nuclear Materials Safety and Safeguards	363	344	-19
Inspection and Enforcement	1,136	1,114	-22
Nuclear Regulatory Research	180	172	-8
Program Technical Support	357	334	-23
Program Direction and Administration	647	631	-16
TOTAL NRC	3,369	3,250	-119

The funding level being proposed in FY 1988 compared with FY 1987 for Salaries and Benefits is shown as follows:

	FY 1987	FY 1988	Change
Salaries and Benefits	$175,823,000	$176,800,000	+$977,000

QUESTION 2. (Continued) 2

This increase of approximately $1 million for NRC FY 1988 Salaries and Benefits is the net result of the reduced personnel level compared to FY 1987, an increase of $5.2 million for the 3% federal pay raise effective in January 1987, and an increase of $3.0 million for the Federal Employees Retirement System (FERS), also effective in January 1987.

QUESTION 3. Please discuss any proposed rescissions, deferrals or supplementals proposed for FY87.

ANSWER.

The NRC is not proposing any rescissions, deferrals, or supplementals for FY 1987.

QUESTION 4. Please indicate if any legislative initiatives are necessary, or are being considered, to implement any part of the agency's FY88 budget request. If so, please describe these proposals and specify the budgetary impact of each provision.

ANSWER.

There are no legislative initiatives that are necessary to implement the NRC's FY 1988 budget request. However, at the request of the OMB, the NRC has included in its recently submitted proposed legislation to authorize appropriations for FY 1988-1989, language which raises NRC user fees from 33 percent to 50 percent of the NRC budget.

QUESTION 5. Please summarize the functional and budgetary impact of any organizational changes, including physical relocation or consolidation of agency staff, that have been undertaken or are being considered.

ANSWER.

As reflected in our budget request, the Commission has taken the initiative to reduce FTE allocations by about 10 percent from the FY 1986 level. The Commission believes that it can achieve this reduction primarily through its combined efforts to consolidate the headquarters staff and reorganize the NRC.

CONSOLIDATION OF THE HEADQUARTERS STAFF

The NRC will begin consolidation of the headquarters staff after more than ten years of operations dispersed among ten different buildings around the Washington, DC area. The General Service Administration has purchased an 18-story office building and signed an agreement to lease space in an adjacent building, scheduled for construction within about three years. This will permit full headquarters consolidation in Rockville, MD. The NRC has worked diligently on this endeavor and is committed to its success.

The Congress has repeatedly supported NRC's efforts to consolidate its headquarters employees. The Commission believes the benefits the agency will derive from consolidation, in terms of increased efficiency and effectiveness, will be permanent and will have a positive effect on our ability to protect the public health and safety. The amount budgeted for consolidation is: FY 1987 $4.8 million; FY 1988 $5.7 million; and FY 1989 $8.7 million.

REORGANIZATION OF THE NUCLEAR REGULATORY COMMISSION

The NRC is reorganizing to better accommodate the changed nature of its responsibilities and workload through a more effective and efficient organizational structure. The responsibilities of the NRC have shifted from evaluation of construction permits and operating license applications to the regulation of a maturing operational industry. As the plants presently being built are completed, the NRC will have progressively less regulatory involvement with large complex construction activities, and considerably more involvement with operational safety issues such as maintenance, aging, life extension, waste management, and similar issues. Up to this point the structure of the agency has not evolved to reflect this shift in responsibilities. The current reorganization will more properly reflect our responsibilities as we see them today and into the 1990's.

The reorganization will comply with current statutes. No legislation is necessary. The basic reorganization structure and many of the senior managers have been recently approved by the Commission. The reorganization will become effective in April 1987.

In the new organization, the Office of Nuclear Reactor Regulation (NRR) will be responsible and accountable for licensing, inspection and safeguards programs for reactors. The Office of Nuclear Materials Safety and Safeguards (NMSS) will have a similar responsibility and accountability for non-reactor safety programs, including nuclear waste management.

Under the new organization, the Office of International Programs and the Office of State Programs will become Commission-level offices rather than staff offices. This action reflects the importance that the Commission assigns to enhanced communications internationally and with states, local communities and Indian tribes. They will report to the Commission through the new Office of Government and Public Affairs. Additionally, the new office will include the functions of the present Office of Public Affairs and the Office of Congressional Affairs.

The role of the Office for Analysis and Evaluation of Operational Data (AEOD) will be strengthened and expanded. The office will be the focal point for the continuing assessment of safety of operational facilities. AEOD will manage the review, analysis and evaluation of reactor plant performance as well as being responsible for the incident response program.

The responsibilities of the Office of Nuclear Regulatory Research will be increased to make it responsible for resolving generic safety issues, including unresolved safety issues, and conducting full-scope probabilistic risk assessments. These assignments are intended to bring about a closer tie between research and other agency safety programs.

NUCLEAR REGULATORY COMMISSION
POST-HEARING QUESTIONS

QUESTION 1. In 1983-1984 you reviewed and concurred in the Department of Energy's Guidelines for the Recommendation of Sites for Nuclear Waste Repositories, later enacted as 10 CFR 960 ET SEQ. Your action was taken, I understand, over some objection on the part of the states that the guidelines were not sufficiently objective. Now that DOE has applied those guidelines, reducing the field of sites to three -- what is your observation about their objectivity, their utility, their fairness, and above all from the point of view of your duty to protect the health and safety of the public from radiological risks, their contribution to providing the NRC with a repository site it will be able to license?

ANSWER.

The guidelines should assure that sites selected are reasonable candidates for a license application. In its concurrence decision the Commission found that the siting guidelines cover all of the factors that must be considered in order to select reasonable sites for geologic repositories. At that time, however, the Commission recognized that the implementation of those guidelines was of equal importance. Subsequent to the Commission's concurrence the staff has followed DOE's implementation of the siting guidelines as part of the staff's review of the Environmental Assessments. The staff's review of the EAs identified no major concerns that would change the Commission's concurrence decision. The Commission continues to consider that proper

QUESTION 1. (Continued)

implementation of the siting guidelines by DOE will result in the selection by DOE of a site that would be a reasonable candidate for licensing.

Commissioner Asselstine adds:

I believe there are continuing legitimate concerns about DOE's site comparison and selection methodology and the adequacy of information used by DOE in making its site selection and site ranking decisions. Underlying these concerns is a continuing dissatisfaction with DOE's site guidelines. The NRC staff's comments on both the draft and final environmental assessments for the first round repository sites note that DOE continues to take an overly optimistic view with regard to the problems at these sites. The NRC staff found several instances in which DOE had not considered some available, but potentially negative, information about these site, or in which DOE had not given recognition to the uncertainties included in our current state of knowledge about the sites or to alternative interpretations of the existing data. At least some of the staff's criticisms could be used as a basis for arguing that these sites do not meet DOE's site selection guidelines. Moreover, the many state and Indian tribe criticisms which have been leveled at DOE's site selection methodology and site ranking process, and DOE's continuing inability to provide a credible and persuasive response to those criticisms, are indicative of the seriousness of this weakness in DOE's repository program. I believe that DOE should reopen the site selection guidelines and site ranking methodology. These documents should be revised to make them more specific and to define the levels of information needed to make reasoned evaluations and comparisons of sites. These documents must become effective tools for identifying the best possible sites in the country and for

QUESTION 1. (Continued)

screening out sites that are likely to be proven unacceptable or that are going to be very difficult to evaluate or qualify. I discussed these and other weaknesses in the DOE repository program in a recent speech. I have attached a copy for the Committee's information.

QUESTION 2. In 1984, the States of Nevada and Minnesota filed a petition for rulemaking to the NRC which proposed essentially two things: (1) that institutional assurances be required of any eventual repository so as to reinforce even conservative quantitative radionuclide release prognostications and (2) that the Nuclear Waste Policy Act's preliminary determination of site suitability provision (Section 114f) be integrated in NRC regulations so as to better guarantee that the NRC will be able to adopt the environmental impact statement required by the Act to be written by DOE. What action has been taken on Nevada's petition and what is your current position on these two individual proposals?

ANSWER.

The petition from the States of Nevada and Minnesota was amended by a subsequent petition dated September 30, 1985. Receipt of this amended petition was noticed in the Federal Register on December 19, 1985 (50 FR 51701). In this notice, the Commission stated its intent to publish proposed amendments to its regulations that it anticipated would incorporate the EPA "assurance requirements," to the extent appropriate. These proposed amendments were published in the Federal Register for comment on June 19, 1986 (51 FR 2228), and final amendments are scheduled to be published later this year. In the supplementary information for the proposed amendments, the Commission called attention to the pending petition submitted by the States of Nevada and Minnesota. The Federal Register Notice noted that the proposed

QUESTION 2. (Continued)

rule incorporated much of the EPA "assurance requirements," with some modifications, and requested public comment on the respective merits of the Commission's proposal and that of the States of Nevada and Minnesota.

The second aspect of the petition, involving an amendment to the Commission's regulations relating to NRC review and adoption of DOE's environmental impact statement, falls within the scope of a separate rulemaking which would amend 10 CFR Part 51. A proposed rule is planned to be published for comment later this year. In a related matter, the Commission determined that DOE's position regarding the timing of its preliminary determination required by Section 114(f) of the Nuclear Waste Policy Act of 1982 did not affect the Commission's concurrence in the DOE siting guidelines and that NRC's concurrence remained valid (50 FR 46525).

QUESTION 3. The Nuclear Regulatory Commission is now seeking congressional appropriation from the nuclear waste fund to support its evaluation of DOE's repository programs both now, before licensing begins, and I presume, during the licensing phase which will occur several years from now. A well funded NRC will, I believe, better assure a more critical evaluation of DOE's proposal, and I support your request in its general terms. But as you know, the other party which the statute gave an oversight role is the affected state. DOE's position all along has been that state programs' funding is subject to federal largesse and that the Department's goodwill is limited when the state becomes critical of its benefactor.

(a) First, what is your position regarding DOE's imposed funding limitations on the states? Do you find them inconsistent with the oversight role the NRC and the states both provide?

ANSWER.

NRC does not consider the financial assistance process between DOE and affected states and Indian tribes to be within its purview, and thus has no position on this matter. The Nuclear Waste Policy Act of 1982 (NWPA), Sections 116 and 118, outlines the financial assistance process between the Department of Energy and the affected states and Indian tribes and does not

QUESTION 3. (Continued)

provide for NRC involvement. In addition, NRC subsequently amended its Licensing Procedures for Disposal of High-Level Radioactive Waste in Geologic Repositories, 10 CFR Part 60, to conform with the NWPA and noted that authority to fund a broad variety of state activities has been vested in DOE.

Commissioner Asselstine adds:

The Nuclear Waste Policy Act of 1982 makes it clear that the potential host States were to be active and equal participants in the high-level waste repository process and that the States and Indian tribes were to be provided the funding necessary through the Nuclear Waste Fund to carry out that role. I believe the NRC has a stake in assuring that the States and Indian tribes have the resources to carry out their role according to law.

(b) Second, what institutional devices do you propose to avoid DOE's manipulation of your independent critical evaluation of DOE's proposal in the licensing conflict?

ANSWER.

Both NRC and DOE are sensitive to this issue. The NRC staff will meet with DOE in the near future to develop procedures for the recovery of NRC's costs. These procedures would ensure that NRC's independence will be preserved.

QUESTION 4. The NWPA envisions a three-year time frame in which NRC will evaluate DOE's proposed repository site. So far some of the statutory time frames have been met. Do you feel bound by the statute's deadlines and under what conditions would you be willing to extend licensing over those deadlines in order to perform your duty under the Atomic Energy Act to protect the public health and safety from radiological injury.

ANSWER.

The Commission intends to make every practicable effort consistent with its health and safety responsibilities to meet the three-year schedule set forth in the Nuclear Waste Policy Act (NWPA) for a decision on a DOE application for repository construction authorization. NRC is currently pursuing a number of steps to streamline the repository licensing process. Our ability to meet that schedule, however, depends heavily on the completeness and quality of DOE's license application. If the Commission finds that an unresolved safety issue would prevent its meeting the three-year timetable, (or a four-year timetable if the one-year extension under Section 114(d)(2) is employed), the Commission will notify Congress, provide an estimated time for completion of its activity, and provide all other information required under Section 114(e)(2) of the Act.

QUESTION 5. What is your current position on the appropriate liability of the Federal Government on its contractors for accidents involving high-level nuclear waste?

ANSWER.

The scope of current Price-Anderson coverage for NRC reactor licensees includes any accident (including any caused by theft or sabotage) involving high-level nuclear waste whether stored at the reactor site or in transit from the reactor. In the ongoing Congressional effort to amend and extend Price-Anderson this year, the proposals on which the Congress appears to be focusing specify Price-Anderson coverage for high-level waste accidents including the transportation, storage and disposal of high-level waste. The Commission supports this approach and defers to the Secretary of Energy on what should be the extent and limits of liability of the Federal Government or its Contractors for accidents involving high-level waste.

QUESTION 6. Should the NRC evaluate, within the licensing process, the route specific transportation implications of the licensing of a particular site even though that area is otherwise "regulated" by the U.S. Department of Transportation?

ANSWER.

The NRC would not normally evaluate route specific transportation implications of a particular repository, because DOE transportation is not subject to licensing under the Atomic Energy Act. However, DOE has announced its intent to comply with all DOT and NRC transportation requirements that are in effect at the time of shipment to NWPA facilities. In an interagency Memorandum of Understanding (MOU) with the Department of Transportation (DOT) which was published in the Federal Register (44 FR 38690) on July 2, 1979, the DOT maintains responsibility for route safety aspects of transporting radioactive materials and all other classes of hazardous materials. The safety record to date with this MOU has been good.

It may be noted that under a procedural agreement with the Department of Energy, which was published in the Federal Register (48 FR 51875) on November 14, 1983, NRC will review and approve package designs for high-level radioactive waste or spent nuclear fuel being shipped by DOE from one NRC-licensed facility to another. However, this review would not deal with route-specific matters.

QUESTION 6. (Continued)

Commissioner Asselstine believes that the NRC is obligated to consider the transportation implications of DOE's repository proposal, as well as those of other alternative sites, as part of the agency's responsibilities under the National Environmental Policy Act and the Nuclear Waste Policy Act.

QUESTION 7. In the late 1970's the NRC engaged in the "Waste Confidence Proceeding." At its termination, the Commission concluded that individual reactor waste accumulations could be disposed of in a national, centralized system, that the Federal government through the Department of Energy was embarked on the creation of such a system and that, therefore the generic issue of waste disposal was resolved and that the individual reactor waste disposal issue need not be raised in each proposed reactor's individual licensing proceeding. Do your staff's critical comments on DOE's three proposed sites, the manner in which DOE selected those sites, DOE's abandonment of the second-round program, or Congress' frustration with all of that, cause you to reevaluate the conclusions of the Waste Confidence Proceeding?

ANSWER.

We see no need to reevaluate the conclusions of the Waste Confidence Proceeding at this time. DOE is currently scheduled to provide a repository within the timeframe set forth in the Commission's Waste Confidence decision. In its decision, the Commission found that it had reasonable assurance that one or more geologic repositories would be available by the years 2007 - 2009.

Nevertheless, the Commission has committed to review its conclusions on Waste Confidence at least every five years (the first five-year review is scheduled to be in 1989) or if significant and pertinent unexpected events occur.

QUESTION 8. What is the estimated funding level for source term research for the next several years?

ANSWER.

The NRC's current budget includes $15.7 million in FY 1987; $17.2 million in FY 1988; and $16.2 million in FY 1989 for research programs being conducted to address areas of major uncertainty in the source term. The source term research needs are expected to decline in the later years.

QUESTION 9. (a) What is the FY 1988 funding level for HLW activities?

ANSWER.

The Nuclear Regulatory Commission's (NRC) high-level waste activities are being conducted to fulfill its responsibilities under the Nuclear Waste Policy Act of 1985 (NWPA). The NRC's total FY 1988 budget estimate (NMSS, RES, IE, AND PTS offices) to fulfill these responsibilities is for 169 FTE and $27.1 million. The $27.1 million funding level includes salaries and benefits, contract assistance, administrative support and travel.

QUESTION 9. (Continued)

(b) What is the FY 1988 funding level for NWPA activities?

ANSWER.

The FY 1988 budget estimates to fulfill NRC's high-level waste responsibilities under NWPA are the same as provided in response to question 9a. In addition, less than $100,000 is planned in FY 1988 to fulfill NRC's responsibilities under Section 151 (low-level waste) of the NWPA.

QUESTION 10. Will the FY 1988 reduction in NRR's safety technology program affect the resolution of safety issues?

ANSWER.

This staff reduction will not affect the current schedule for the resolution of safety issues.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333

FEB 11 1987

The Honorable Quentin N. Burdick
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510-8175

Dear Mr. Chairman:

This is in response to your letter of January 28 requesting copies of certain documents related to the Agency for Toxic Substances and Disease Registry's (ATSDR) budget request for Fiscal year 1988. Enclosed are copies of all submissions and correspondence associated with your request.

Please note that we submitted two separate but related requests for Fiscal year 1988 funding. The first, which was submitted on May 20, 1986, requested support for health activities under the Superfund Act as originally passed in 1980. The second request, which was submitted to the Environmental Protection Agency (EPA) on September 4, 1986, amended our request to reflect the new health authorities under the Superfund Amendments and Reauthorization Act (SARA) of 1986. This request, which was for $50 million, was approved by the Public Health Service (PHS), the Department of Health and Human Services (HHS), and the Office of Management and Budget (OMB), and was part of the President's 1988 Budget Request submitted to the Congress.

You also requested that we provide you with a letter detailing the budget process that ATSDR has used in the past and any thoughts that we might have regarding modifications to that process in light of Section 111(h) of SARA.

In the past, ATSDR has been part of the EPA Superfund budget process mandated under Executive Order 12316 for all Federal agencies that received financial support under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

Briefly, that process was as follows. Each spring, ATSDR submitted a formal request for funds to EPA for its review and consideration. EPA, as the lead agency under CERCLA, provided us with either a written or verbal passback. ATSDR then made a formal appeal, if needed. EPA submitted these budgets to OMB, as part of its agency submission. During this entire process, we of course simultaneously submitted all budget documents to the appropriate office within HHS.

We are aware that Section 111(h) authorizes direct funding of ATSDR. However, we are still required to operate under Executive Order 12316. Although the OMB is currently amending this order, we do not know which budget process will be included in the final version for

ATSDR. As you know, during Fiscal year 1987, ATSDR's budget was still made a part of EPA's appropriation. We, therefore, received our Fiscal year 1987 funds from EPA using the traditional mechanism of an interagency agreement.

Regarding FTE allocation, EPA has had no authority over the allocation of FTEs to ATSDR. Our FTEs have been included in the Centers for Disease Control's (CDC) budget under that agency's reimbursable program activity. In Fiscal year 1987, 101 FTEs were formally approved for ATSDR. This figure was increased to 138 through oral request and response. For Fiscal year 1988, 175 FTEs were approved for ATSDR through PHS, HHS, and OMB. Enclosed are copies of all submissions associated with ATSDR FTEs.

We are sending a similar response to Senator Robert Stafford who also signed your letter.

Sincerely yours,

James O. Mason

James O. Mason, M.D., Dr.P.H.
Assistant Surgeon General
Administrator

Enclosures

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Agency for Toxic Substances
and Disease Registry
Atlanta GA 30333

May 20, 1986

Mr. Henry L. Longest II
Director, Office of Emergency and
Remedial Response
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Mr. Longest:

In accordance with the guidance set forth in your memorandum received on April 9, 1986, I am formally transmitting the enclosed funding request for FY 1988 for the Department of Health and Human Services'(HHS) ongoing responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Superfund).

We are requesting a total of $48,643 million, an increase of $24,095 million over the FY 1987 President's Budget, for our ongoing activities.

Our FY 1988 request is based on six major decision units for which we have responsibility. We are proposing new initiatives for several decision units, all of which will contribute to protection of human health from exposure to toxic substances.

As in the past, the enclosed budget request does not set priorities among the decision units since all activities are mandated under law and are consistent with the priorities and policies EPA has set for Superfund implementation. In previous years, we have negotiated levels of activities within, rather than between decision units, and we believe it is appropriate to follow the same procedure this year.

We look forward to working with you in developing the FY 1988 Superfund budget request. We will be meeting with your staff this Thursday to answer any questions they may have and provide any additional information needed.

Given the likely short turn-around time for appeals, we would appreciate your staff contacting us as soon as you have your preliminary recommendations completed.

Sincerely yours,

Barry L. Johnson

Barry L. Johnson, Ph.D.
Associate Administrator

cc:
Craig Zamuda, EPA

Department of Health and Human Services
FY 1988 Activity Analysis

Activity Title: Scientific Support
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Section 104(i) of CERCLA establishes the Agency for Toxic Substances and Disease Registry and requires that in implementing the health related provisions of CERCLA, ATSDR coordinate with all agencies of the Public Health Service as well as other relevant Federal agencies. One specific subsection of this provision, Section 104(i)(3), calls for ATSDR to establish and maintain a listing of all areas closed or restricted in public use because of toxic substance contamination. As a further statutory requirement for activities funded under this budget category, Section 104(b) requires the President to determine the extent of danger to the public's health from release of hazardous substances which has been delegated to HHS by Presidential Executive Order #12316.

The objective of funding in this budget category is to support all health consultations and health assessments for sites being considered for cleanup by EPA (or being investigated by a State upon request, or by ATSDR itself), to support the administrative structure of ATSDR and the coordination activities of that agency, and to maintain the listing of restricted sites.

Current and Planned Program

FY 1986

a. Provide the needed site-specific, health-related scientific support and advice to EPA headquarters and regions. -Recommend and review environmental test results for indication of hazard to human health for sites which have undergone site investigation by EPA.

Anticipated Output: Consultative services will be available to EPA personnel for assessments of the public health hazards associated with removal and remedial action sites under consideration by EPA at a continuation of services level from FY 1985.

b. Coordinate all CERCLA health-related activities among relevant Public Health Service agencies and provide management to the Agency for Toxic Substances and Disease Registry.

Anticipated Output: Continue staffing the Agency for Toxic Substances and Disease Registry and coordinate all health activities under CERCLA; produce an updated listing of restricted sites.

Activity Title: Scientific Support (continued)

FY 1987

a. Provide the needed site-specific, health-related scientific support and advice to EPA headquarters and regions. Recommend and review environmental test results for indication of hazard to human health for sites that have undergone site investigation by EPA.

Anticipated Output: Consultative services will be available to EPA personnel for assessments of the public health hazards associated with remedial action sites under consideration by EPA at a continuation of services level.

b. Coordinate all CERCLA health-related activities among relevant Public Health Services Agencies and provide management to the Agency for Toxic Substances and Disease Registry.

Anticipated Output: The Agency for Toxic Substances and Disease Registry will update, sign and monitor IAGs with the National Library of Medicine (NLM), the National Toxicology Program (NTP) and the Centers for Disease Control (CDC) to provide all needed program assistance; will coordinate budget, program planning and evaluation activities; and update and maintain listing of restricted sites.

c. Establish a cooperative agreement program with State health departments to assess health hazards of Superfund sites in their States.

Anticipated Output: Depending on monies available, ATSDR will sign agreements with 2-3 States to do health assessments for Superfund sites.

d. Provide a National training program for State and local health personnel.

Anticipated FY 1987 Output: One National training conference will be held under the auspices of ATSDR. The conference will result in improved awareness and knowledge of how State/local health officials can respond to public health concerns presented by CERCLA actions.

Activity Title: Scientific Support (continued)

Activity Descriptions and Expected Accomplishments - Maintain Current Level of Services

FY 1988

a. Provide the needed site-specific, health-related scientific support and advice to EPA headquarters and regions. Recommend and review environmental test results for indication of hazard to human health for sites that have undergone site investigation by EPA.

Anticipated FY 1988 Output: Health consultations and health assessments assessments at remedial sites will be maintained at a current service level. In FY 88 that number is estimated to be at least 1,000 consultations and health assessments at Superfund sites either on the National Priority List or being considered for remedial action.

b. Coordinate all CERCLA health-related activities among relevant Public Health Service Agencies and provide management to the Agency for Toxic Substances and Disease Registry.

Anticipated FY 1988 Output: ATSDR will update, sign and monitor IAGs with all participating Public Health Service Agencies: the National Institutes of Health (the National Toxicology Program and the National Library of Medicine), the Food and Drug Administration (National Center for Toxicological Research), and the Centers for Disease Control for all needed program assistance; will coordinate budget program planning and evaluation activities; will update and maintain listing of restricted sites; and will provide cost recovery accounting information to EPA and the Department of Justice.

c. In accordance with NRT/RRT initiatives to provide training to State and local response personnel to improve their response capabilities, ATSDR will provide a national training program for State and local health agency personnel who have responsibilities in the area of general health consultations for hazardous substances, for health assessments of Superfund sites, for emergency response to chemical spills/releases, and for the design/implementation of epidemiologic studies.

Anticipated FY 1988 Output: One national training conference will be held with the goal of training at least 100 state and local health officials.

d. In keeping with NRT/RRT directive to build state and local health response capabilities, initiate a cooperative agreement program with selected State health departments to assess health hazards related to existing or potential Superfund sites in their States.

Activity Title: Scientific Support (continued)

Anticipated FY 1988 Output: Depending on monies available, ATSDR will enter into cooperative agreements with 2-3 States for the purpose of assisting ATSDR in providing health consultations and written health assessments to EPA, or the State lead agency, on identified Superfund sites.

Activity Descriptions and Expected Accomplishments - Request Level

FY 1988

In addition to those activities listed above, expand ATSDR staffing for health assessment and coordination activities as well as requesting that the training and cooperative agreement initiatives be funded at levels originally requested:

a. and b.
Anticipated FY 1988 Output: Increase staffing by 8 FTE to accommodate increased workload for health assessments as well as the need for supporting cooperative efforts through the NRT/RRT for joint planning, training, guidance document development, etc. Without the increased staffing, we will be unable to meet the ever increasing number of requests for health assistance by EPA Regional and Headquarters staff to consult on Superfund sites being considered for remedial action. Since the beginning of the program in FY 82 (when we provided 87 health consultations), we have experienced an ever increasing demand for our assistance (a total of 894 health consultations on remedial sites was provided in FY 85). In spite of this increase we are still working only on a fraction of the total number of sites, and even more importantly, current staff cannot fully meet current demand. Similarly, additional staff is needed to better monitor and direct health activities being done by other PHS agencies or outside organizations mandated under law, and sponsored by ATSDR. Funding for such staff is needed to ensure quality products directly applicable to our Superfund mission, and to improve communication between ATSDR, EPA and other participating Federal and State agencies.

c. Anticipated FY 1988 Output: In addition to the one national conference, four regional training conferences will be held with the goal of training a total of at least 200 state and local health officials.

d. Anticipated FY 1988 Output: Depending on monies available, ATSDR will enter into cooperative agreements with a total of 4-6 States for the purpose of assisting ATSDR in providing health consultations and written health assessments to EPA, or the State lead agency, on identified Superfund sites.

Activity Title: Scientific Support (continued)

Explanation of Change - 1988 Total Request v 1987 President's Budget

a. and b.
Since the beginning of ATSDR/EPA interaction on the Superfund program, there has been a growing demand for our health services. In FY 82 we provided some 87 health consultations related to remedial sites. That number grew to 781 in FY 83, 827 in FY 84, and 894 in FY 85. That number is projected to exceed 1,000 each year between FY 86 and FY 88. Even though the number of health consultations has increased rather dramatically from our first year, it is not currently meeting needs expressed by EPA regional offices -- nor is it expected to in the coming years without funding for the additional staff requested.

c. Funds are to cover the expansion of training conferences from one national conference to one national conference and four regional sessions. The national conference will be geared toward more generic health issues related to toxic waste sites -- including overviews of progress in health effects research, information dissemination, standardized questionnaires for health surveys, etc. The regional conferences are anticipated to be dedicated to single theme issues such as how to communicate health information to communities, or how to design and conduct an epidemiologic study. These conferences contribute to an ATSDR goal of building capacity in State and local health agencies to handle some CERCLA-related actions.

d. Funds are to cover cooperative agreements with a total of 4-6 states (rather than the 2-3 at the current services level.) In addition, it is anticipated that this pilot program begun in FY 87 in only 2 or 3 states with a limited number of sites for health consultations/health assessments will prove successful and be expanded both to more states, and more sites per state. These cooperative agreements contribute to an ATSDR goal of building capacity in State and local health agencies to handle some CERCLA-related actions.

Department of Health and Human Services
FY 1988 Activity Analysis

Activity Title: Emergency Response
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

In cases of public health emergencies or other instances of actual or probable human exposure, ATSDR is authorized under Section 104(i)(4) to assist, consult, and coordinate with private or public health care providers in the provision of medical care and testing of exposed individuals, including the collection and laboratory analysis of specimens as may be indicated by the specific exposure incident. The objective of funding in this budget category is to provide all needed health assistance at Superfund emergency or immediate removal sites.

Current and Planned Program

FY 1986

a. Provide health-related field guidance and laboratory support at emergency and immediate removal sites.

Anticipated Output: Continue to provide health support for emergency and immediate removal response actions at current service level.

FY 1987

a. Provide health-related field guidance and laboratory support at emergency and immediate removal CERCLA sites. -

Anticipated Output: Continue to provide health support for emergency and immediate removal response actions at current service level.

Activity Descriptions and Expected Accomplishments - Maintain Current Level of Services

FY 1988

a. Provide health related field guidance, consultation, and laboratory support at emergency and immediate removal CERCLA sites.

Activity Title: Emergency Response (continued)

Anticipated Output: Provide needed field support and/or phone consultation to address on-site health concerns at emergency spills and immediate removal actions at current service level. In FY 1988 at least 600 health consultations for emergency or immediate removal actions is expected to be the current services level.

b. In keeping with the NRT/RRT desire to strengthen the State and local capabilities for response, a demonstration state/local training initiative is proposed for emergency response. Primarily because of their inexperience in dealing with toxic emergency, State and local health professionals have not been involved in RRT activations. This cooperative agreement training proposal is designed to familiarize state and local health officials with computerized health information systems, contingency planning, toxic emergency health management, appropriate biologic sampling, worker safety and health equipment and appropriate usage, and public affairs.

Anticipated Output: The two demonstration programs begun in FY 1987 will be continued in FY 88 with each program operating at least one orientation session (with at least 20 participants) on a monthly basis.

Activity Descriptions and Expected Accomplishments - Request Level

FY 1988

In addition to the above activities, we are requesting funding for an increase in training initiatives to accomplish the following new activities, each of which contributes to an ATSDR goal to build capacity in State/local health agencies in response to CERCLA needs:

- Two additional training programs (municipal emergency response units) will be designated during FY 1988 with the goal of holding at least four one-week orientation sessions (with at least 20 participants each) during this start-up year. At this request level, the two programs begun in FY 1987 will be fully operationaly with a one-week session every month for at least 20 participants each; and the two new programs operating at least four such sessions in their first year.
- On-Site Training: As further support to state and local health personnel, eight target states will be identified and funded to conduct a one-time training session appropriate to local needs. These sessions will be targeted at state and local public health care providers who have the responsibility for providing appropriate medical advice and care during toxic emergency situations.

Activity Title: Emergency Response (continued)

- National Teleconference: A national teleconference will be held in coordination with national health professional associations (American Hospital Association, American Medical Association, National Medical Association, etc.) to acquaint health professionals with emergency medical needs related to toxic exposures. It has been our experience that the vast majority of private medical providers, including emergency room personnel, are unequipped to deal with toxic emergency situations. This teleconference will be geared to providing basic information on how to deal with such emergencies, as well as giving them information on how to get the best health effects information on specific chemicals as needed.

Explanation of Change - 1988 Total Request v 1987 President's Budget

b. Training of state and local emergency responders has been identified as a high priority in the NRT survey of regional, state and local needs, and in discussions ATSDR has had with state and local health care professionals. In order to better meet those needs, we plan to utilize three different approaches to training for emergency preparedness and response in FY 1988. The first is to expand the regional training centers for health personnel from 2 in FY 1987 to 4 in FY 1988. Secondly, we plan to identify 8 target states and conduct a one-time training session tailored to local needs. Finally, in an effort to outreach emergency hospital room personnel as well as private practioners, we plan a national teleconference dealing with issues related to emergency care for victims of toxic exposure. The increased funds in this budget category are to fund these efforts.

Department of Health and Human Services
FY 1988 Activity Analysis

Activity Title: Health Surveys and Investigations
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Sections 104(i)(1) & (5) require ATSDR to maintain both exposure and disease registries, and to determine the relationship between exposure to toxic substances and illness. Activities in this decision unit include the development of site specific health study protocols, the development of standard laboratory tests, pilot testing and studies at multiple sites with similar toxic contamination, and implementation of general or multiple site health studies.

Current and Planned Program

FY 1986

a. Develop standard recommended guidelines and protocols for needed laboratory and/or epidemiologic investigations.

Anticipated Output: Apply tests of kidney and liver functions designed for use in assessing the health effects of individuals to Superfund site studies; continue development of tests of immune function; begin development of tests to assess the cardiovascular status of individuals exposed to toxicants at Superfund sites; and continue to synthesize conjugers of dioxins, furans, PCBs and biphenylenes as analytical standards.

b. Develop site(s)-specific protocols for needed health surveys and studies.

Anticipated Output: Develop detailed protocols for the establishment and conduct of health studies or surveys to more thoroughly assess the health hazard posed to the general public or workers at specific Superfund sites.

c. Work with States on pilot investigations of health effects on limited target populations.

Anticipated Output: Complete approximately 20 pilot health studies at Superfund situations on populations thought to be those most highly exposed to specific toxic substances.

Activity Title: Health Surveys and Investigations (continued)

d. Conduct expanded studies of birth defects at Superfund sites.

Anticipated Output: (1) Continue two low birth weight and/or developmental disability studies funded in FY 1984; (2) depending on monies available, initiate between four and five studies on adverse reproductive outcomes, or development disabilities.

e. Establish a comprehensive program to systematically collect and analyze morbidity and mortality data on diseases wholly or partially attributable to exposure to toxic substances in the environment.

Anticipated Output: Develop standard protocols to be used to establish registries of rare sentinel diseases such as osteosarcomas, soft tissue sarcomas, hepatic angiosarcomas, aplastic anemia, and mesothelioma.

FY 1987

a. Develop standard recommended guidelines and protocols for needed laboratory and/or epidemiologic investigations.

Anticipated Output: Continue applying the kidney and liver tests; complete the immune system tests; continue development of the cardiovascular tests; and continue synthesizing analytical standards for toxicants measurable in human tissues.

b. Develop site(s)-specific protocols for needed health surveys and studies.

Anticipated Output: Develop detailed protocols for the establishment and conduct of health studies or surveys to more thoroughly assess the health hazard posed to the general public or workers at specific Superfund sites.

c. Work with States on pilot investigations of health effects on limited target populations.

Anticipated Output: Complete approximately 20 pilot health studies at Superfund sites on populations thought to be those most highly exposed.

d. Conduct expanded studies of birth defects at Superfund sites.

Activity Title: Health Surveys and Investigations (continued)

Anticipated Output: Continue cross-sectional studies to investigate the relationship between low birth weight and developmental disabilities as an effect of exposure to toxic substances from hazardous waste sites, and case control studies of birth malformations as an effect of similar exposure.

e. Establish a comprehensive program to systematically collect and analyze morbidity and mortality data on diseases wholly or partially attributable to exposure to toxic substances in the environment.

Anticipated Output: Begin to implement a sentinel disease surveillance system. Continue with expanded analysis of hospital discharge morbidity/mortality data to help pinpoint sentinel disease and/or birth defects that may be attributable to toxic exposure.

Activity Descriptions and Expected Accomplishments - Maintain Current Level of Services

FY 1988

a. Develop standard recommended guidelines and protocols for needed laboratory and/or epidemiologic investigations.

Anticipated Output: Continue application of tests developed for the kidney, liver, cardiovascular and immune systems to epidemiologic studies of Superfund sites, as well as continue synthesizing analytical standards of toxicants in human tissues. Redirect lab testing development into new target organ systems, genetics, and reference range work, as well as transferring new testing methodologies to EPA and State laboratories.

b. Develop site(s)-specific protocols for needed health surveys and studies.

Anticipated Output: Develop detailed protocols for the establishment and conduct of health studies or surveys to more thoroughly assess the health hazard posed to the general public or workers at specific Superfund sites.

c. Work with States on pilot investigations of health effects on limited target populations.

Anticipated Output: Complete approximately 20 pilot health studies at Superfund sites on populations thought to be most highly exposed.

d. Conduct expanded studies of birth defects at Superfund sites.

Activity Title: Health Surveys and Investigations (continued)

Anticipated Output: Continue cross-sectional studies to investigate the relationship between low birth weight and developmental disabilities as an effect of exposure to toxic substances from hazardous waste sites, and case control studies of birth malformations as an effect of similar exposure.

e. Establish a comprehensive program to systematically collect and analyze morbidity and mortality data on diseases wholly or partially attributable to exposure to toxic substances in the environment. Continue sentinel disease surveillance and morbidity/mortality data analysis at FY 1986 level.

Anticipated Output: Continue with some expansion of hospital discharge morbidity/mortality data to help pinpoint sentinel disease and/or birth defects which may be attributable to toxic exposure.

f. Implement ATSDR health research plan.

Anticipated Output: In association with other federal agencies, ATSDR will develop a coordinated health research plan to address site specific health studies as well as an overall approach to investigate the relationship between toxic exposure and illness or disease. This plan will then be implemented by ATSDR and participating agencies in order of their importance to the overall Superfund effort.

Activity Descriptions and Expected Accomplishments - Request Level

FY 1988

In addition to the above activities, we are requesting funding for the following new initiatives:

g. Evaluate/validate assumptions used in risk assessment

Anticipated Output: In associaton with other federal agencies, this initiative will first evaluate which risk assessment assumptions are amenable to field studies for their validation, identify those of importance to Superfund health assessment, and develop and implement studies which will provide the missing data.

h. Apply evolving technology for evaluating changes in the immune and neurological systems as a result of exposure to toxicants.

Activity Title: Health Surveys and Investigations (continued)

Anticipated Output: This initiative will support health studies at multiple Superfund sites to evaluate adverse effects to exposed populations at those sites. Emphasis will be given to study of changes in functions of the central nervous system and the immune system.

i. Surveillance for acute morbidity and mortality at hazardous industrial sites.

Anticipated Output: Working with EPA, FEMA, and others we will identify and respond to industrial and hazardous waste site disasters and then establish an ongoing surveillance system to document acute morbidity and mortality associated with those sites. This data base will then be used to assess the distribution and characteristics of such accident-related morbidity and mortality with the goal of developing health intervention programs which will supplement engineering efforts to lower the risk of disaster.

j. Environmental health surveillance systems using domestic animals.

Anticipated Output: Anecodotal reports indicate domestic animals can present signs of toxic exposure long before any evidence of adverse effects in humans. To explore the possible use of domestic animals as sentinels of toxic exposure, a protocol will be developed to establish a domestic animal exposure surveillance system for use in predicting human exposure and resulting illness from toxic substances. That protocol will be used on a pilot basis in at least one state containing numerous Superfund sites.

Explanation of Change - 1988 Total Request v 1987 President's Budget

The health study and applied research activities begun two to three years ago are now showing signficant results. Our laboratory methodology activity has resulted in two test batteries for key target organ systems (the liver and kidney) now being ready for use in epidemiologic studies at Superfund sites. The current work on measuring dioxin in human adipose tissue has led to major breakthroughs in documenting exposure, and the anticipated ability to measure dioxin in blood serum will greatly enhance our ability to find people who have suffered significant exposure, and in turn aid in identifying any resulting adverse health effects. The combined studies of exposure to lead in Idaho and Montana have assisted EPA in identifying the extent of the human health problem in relation to those specific sites, and perhaps even more importantly helped us develop a good model of environmental lead levels and correlated blood lead levels.

Based on these results, we plan in future years to direct our health study activities in the following directions:

Activity Title: Health Surveys and Investigations (continued)

o Laboratory efforts will be geared to identifying the most signficant Superfund toxic substances from a human health viewpoint, establishing appropriate methodologies for their measurement in human specimens, and conducting sufficient testing to establish reference ranges in human populations. This will not only enable us to conduct better health assessments at Superfund sites to determine actual exposure, but will also greatly enhance our ability to establish appropriate registries of exposed individuals.

o Epidemiologic studies will be designed with three purposes in mind: 1) learning as much as possible about human exposure and resulting health effects at the specific CERCLA sites studied, 2) applicability of each site study to similar sites being considered in our health assessment process, and 3) evaluating if some of the key assumptions made in quantitative risk assessment are validated in actual situations. Thus, the goal will be to have as many studies as possible be of assistance to the populations studied. This will be of help to ATSDR staff doing health assessments, and to ATSDR and EPA staffs in improving the utility of risk assessment in relation to Superfund site assessment.

Specifically, the increased funds for these health research activities are to cover the following:

f. Additional funds for this category are to cover 15 additional staff to be dedicated to health research activities, and approximately $4 million in funds for cooperative agreements and/or contracts to implement health studies.

g. Additional funds for this new initiative are to cover staff time dedicated to this project as well as some funding for cooperative agreements and/or contracts.

h. Additional funds for this new initiative are to cover staff time dedicated to this project as well as some funding for cooperative agreements and/or contracts.

i. Additional funds for this new initiative are to cover staff time dedicated to this project as well as some funding for cooperative agreements and/or contracts.

j. Additional funds for this new initiative are to cover staff time dedicated to this project as well as some funding for cooperative agreements and/or contracts.

Department of Health and Human Services
FY 1988 Activity Analysis

Activity Title: Worker Safety and Health
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Provide a multi-faceted occupational safety and health program designed to protect workers involved in CERCLA activities (Section 111(c)(6). Major activities include the provision of technical assistance on worker protection at/on CERCLA sites, the identification and assessment of hazards to worker safety and health, the testing of worker protective equipment and clothing, and providing training for workers involved in the cleanup of CERCLA sites.

Current and Planned Program

FY 1986

a. Provide EPA technical consultation on worker health and safety issues at Superfund sites and continue efforts to assess the effectiveness of worker protection clothing and equipment.

Anticipated Output: Provide requested technical on-site consultation to EPA, Coast Guard, and OSHA staffs to assure the best possible worker protection practices at Superfund sites. Continue to: field test worker protective equipment as needed; apply information learned from field testing to updates of Worker Protection Guidelines; and identify protective equipment currently in use that needs additional testing.

FY 1987

a. Provide EPA technical consultation on worker health and safety issues at Superfund sites. Assess the effectiveness of worker protective clothing and equipment. Provide analysis and develop procedures for sampling and analysis of chemical waste sites.

Anticipated Output: Provided requested technical on-site consultation to EPA, Coast Guard, OSHA and State health agencies to assure the best possible worker protection practices at Superfund sites. Continue to identify and assess hazards to worker health and safety and make recommendations for selection of protective clothing and equipment.

Activity Title: Worker Safety and Health (continued)

Activity Descriptions and Expected Accomplishments - Maintain Current Level of Service Only

FY 1987 (continued)

Specific activities include:

Occupational/Environmental Health Clinical Center. Conduct a feasibility study of establishing an occupational/environmental clinical center. The center could perform research necessary to improve and develop clinical methodologies needed to evaluate health effects of chemical or physical hazards typical of CERCLA sites; provide a stable, proficient resource for performing medical screening of selected exposed populations, and could work directly with CDC laboratories involved in development of biological assays designed to detect the concentration of toxic substances in biologic materials.

Symposium on Percutaneous Absorption of Chemicals. A symposium would be held in FY 1987 that would focus on health and safety issues related to the percutaneous absorption of chemicals as potentially experienced by hazardous waste workers. Topics to be presented are: factors affecting absorption in the workplace, cutaneous absorption and risk assessment, and intervention strategies. The proceedings would be published and disseminated to interested parties. Experts from government agencies, universities, industry, and private organizations would be invited to participate and attend.

NIOSHTIC. NIOSHTIC is a bibliographical data base for occupational safety and health which includes information on specific topics related to hazardous waste sites such as chemicals most likely to be present at a hazardous waste site and information on personal protective equipment recommended for use in specific situations.

FY 1988

a. Provide EPA technical consultation on worker health and safety issues at Superfund sites. Assess the effectiveness of worker protective clothing and equipment. Provide analysis and develop procedures for sampling and analysis of chemical waste sites.

Anticipated Output: Provided requested technical on-site consultation to EPA, Coast Guard, OSHA and State health agencies to assure the best possible worker protection practices at Superfund sites. Continue to identify and assess hazards to worker health and safety and make recommendations for selection of protective clothing and equipment.

Activity Title: Worker Safety and Health (continued)

The occupational/environmental health clinical center would begin to operate during this fiscal year. NIOSHTIC would continue to be updated and augmented by additional entries to the bibiliographical data base. Approximately 240 new NIOSHTIC entries would be made each month.

Explanation of Change - 1988 Total Request v 1987 President's Budget

a. Much of the work has been completed in support of assuring appropriate guidance for protecting workers at hazardous waste sites or in emergency situations. The hazardous waste guidance manual for workers was completed in FY 1986. A minimum of 15,000 copies will have been distributed by the end of FY 1986. Field testing of worker protective equipment has been completed. Therefore, some of the funds previously dedicated to this category have been redirected to more pressing needs (such as implementation of the CERCLA mandate to establish exposure registries) and to investigate the potential adverse health outcomes to workers exposed to toxic substances through the health research and study activities outlined in the budget category of health surveys and investigations.

The Occupational/Environmental Health Clinical Center and NIOSHTIC activities would continue. The Symposium which would be held in FY 1987 is planned to be a one time event. Technical consultation activities at Superfund sites would continue.

Department of Health and Human Services
FY 1988 Activity Analysis

Activity Title: Toxicology Data Bases
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Establish and maintain an inventory of literature, research, and studies on the health effects of toxic substances (CERCLA, Section 104(i)(2)). Conduct periodic surveys and screening programs to determine relationships between exposure to toxic substances and illness (CERCLA, Section 104(i)(5) & 111(c)(4)). Activities include the establishment and maintenance of an up-to-date data base on the health effects of toxic substances that is easily understood and accessible to its users; and the expansion of our knowledge about the relationship between toxic substances and illness through toxicological testing.

Current and Planned Program

FY 1986

a. Augment toxicological data bases for chemicals that are generally found in designated Superfund sites or encountered in toxic emergency situations.

Anticipated Output: Based on the funds that become available, prepare or update approximately 400 - 1,000 Hazardous Substances Data Bank (HSDB) records; initiate the preparation of summaries of HSDB records for use in emergency situations; continue to provide updating of records for certain specific data elements as needed; and add appropriate information to both Toxline and Chemline.

b. Support technical committee to review/recommend chemical selection and data needs for data base development priorities and toxicological testing needs.

Anticipated Output: Continue support for preparation and evaluation of hazardous substance dossiers by conducting literature searches and bibliography preparation.

c. Modify software systems to ensure user access to toxicology data bases.

Anticipated Output: Continue to develop the TOXNET system, add additional data bases, field test workstations in emergency response situations, and collaborate in State/Federal data sharing. Expand systems capabilities to accommodate ATSDR files of interest. Reimplement micro-CSIN software for use with personal computers.

Activity Title: Toxicology Data Bases (continued)

d. Identify and test chemicals found in Superfund sites for which inadequate toxicological information exists.

Anticipated Output: In FY 1986, 14 new chemical studies were reviewed by the National Toxicology Program and are in the process of being contracted to start in FY 1987. An additional 39 studies, reviewed in previous years, are in progress and results from most of these will be available by FY 1987. Five additional studies have been completed and results distributed to EPA.

These studies complete the original list of 36 nominated chemicals and chemical classes. Only 2 chemicals (methyl ethyl ketone and 1,2- dichloropropane) have not been added to the test system because of EPA negotiations with industry under TSCA.

During 1986, the NTP will be concentrating on new nominations from the PHS's Hazardous Waste Information Evaluation Subcommittee for Superfund chemicals. Nominations will be prioritized and testing will be initiated dependent upon available resources. Assuming adequate funding, the following new studies will be awarded during FY 1986 (actual number of tests will depend upon funds received): Acetone (prechronic); Barium Chloride (chronic); Cresols (prechronic and chronic); Bromoform/Chloroform (continuous breeding); 1,2,4,5-Tetrachlorobenzene (prechronic); Cupric Sulfate (prechronic and chronic); Hexachloro-1,3-Butadiene (teratology and perinatal); Hexachlorocyclopentadiene (chronic); n-Hexane (inhalation teratology); Manganese Sulfate (chronic); Seleniums (prechronic); Sodium Cyanide (prechronic); 1,1,1-Trichloroethane (chemical disposition and teratology).

FY 1987

a. Augment toxicological data bases for chemicals that are generally found in designated Superfund sites or encountered in toxic emergency situations.

Anticipated Output: Prepare or update approximately 750-1,000 Hazardous Substances Data Bank (HSDB) records, through either "express" updating where possible, or via conventional processes; continue to provide summaries of records for use in emergency situations; continue to provide updating of records for certain specific data elements as needed; and add appropriate information to both Toxline and Chemline. The HSDB is a separate file with compound records and data relevant to CERCLA. Data element categories will be developed and maintained for: (1) aspects of clinical medicine concerned with the diagnosis and therapy of individuals exposed to hazardous substances; (2) epidemiological studies related to chemical exposure; and (3) for manufacturing/use information, a method which allows the incorporation of generic synthesis pathways (including side reactions, yields, materials other than the desired substances that may appear in the final product).

Activity Title: Toxicology Data Bases (continued)

Add approximately 25,000 records to TOXLINE; complete registration of 24,000 CERCLA related substances; and prepare 300 to 400 profile summaries.

b. Support technical committee to review/recommend chemical selection and data needs for data base development priorities and toxicological testing needs.

Anticipated Output: Continue support for preparation and evaluation of hazardous substance dossiers by conducting literature searches and bibliography preparation.

c. Modify software systems to ensure user access to toxicology data bases.

Anticipated Output: Continue efforts to encourage field use of toxicology and environmental information, including working with various States to improve access to the system. Major efforts will be made to enrich TOXNET further by (1) acquiring additional subject-related files for collaborating State and Federal organizations and (2) further improving access capabilities. Continue technological deployment through file testing, training, and developmental activities as required in the microcomputer workstation project.

An enhanced TOXNET should be available for full domestic use. The microcomputer will have expanded SCRIPT capabilities and an electronic mail component.

d. Identify and test chemicals found in Superfund sites for which inadequate toxicological information exists.

Anticipated Output: The exact number of new studies that will be started in FY 1987 will depend on the amount of resources that are available. The following studies are planned for FY 1987: Acetone (inhalation teratology); Aniline (continuous breeding); Ethyl Benzene (prechronic and chronic); Butylbenzyl Phthalate (teratology); Diethyl Phthalate (teratology); Dimethyl Phthalate (teratology); 1,1,1-Trichloroethane (chronic); partial support of complex mixtures studies. The following six studies would have to be delayed because of inadequate funding: Pentachlorobenzene (continuous breeding); Dichloroethylene isomers (prechronic studies); Hexachloro-1, 3-butadiene (chronic studies); Dibutyl phthalate (prechronic studies); 1,1,2,2-Tetrachloroethane (prechronic studies); and Methyl ethyl ketone (inhalation teratology studies, prechronic studies, and cytogenetic studies).

Activity Descriptions and Expected Accomplishments - Current Services Level

FY 1988

a. Augment toxicological data bases for chemicals that are generally found in designated Superfund sites or encountered in toxic emergency situations.

Anticipated Output: Prepare or update approximately 750-1,000 Hazardous Substances Data Bank (HSDB) records, through either "express" updating where possible, or via conventional processes; continue to provide summaries of records for use in emergency situations; continue to provide updating of records for certain specific data elements as needed; and add appropriate information to both Toxline and Chemline. The HSDB is a separate file with compound records and data relevant to CERCLA. Data element categories will be developed and maintained for: (1) aspects of clinical medicine concerned with the diagnosis and therapy of individuals exposed to hazardous substances; (2) epidemiological studies related to chemical exposure; and (3) for manufacturing/use information, a method which allows the incorporation of generic synthesis pathways (including side reactions, yields, materials other than the desired substances that may appear in the final product).

Add approximately 25,000 records to TOXLINE; complete registration of 24,000 CERCLA related substances; and prepare 300 to 400 profile summaries.

b. Support technical committee to review/recommend chemical selection and data needs for data base development priorities and toxicological testing needs.

Anticipated Output: Continue support for preparation and evaluation of hazardous substance dossiers by conducting literature searches and bibliography preparation.

An enhanced TOXNET should be available for full domestic use. The microcomputer will have expanded SCRIPT capabilities and an electronic mail component.

c. Modify software systems to ensure user access to toxicology data bases.

Anticipated Output: Continue efforts to encourage field use of toxicology and environmental information, including working with the various States to improve access to the system. Major efforts will be made to enrich TOXNET further by (1) acquiring additional subject-related files for collaborating State and Federal organizations and (2) further improving access capabilities. Continue technological deployment through file testing, training, and developmental activities as required in the microcomputer workstation project.

Activity Title: Toxicology Data Bases (continued)

d. Identify and test chemicals found in Superfund sites for which inadequate toxicological information exists.

Anticipated Output: The following new studies are planned to start in FY 1988: Acetone (chronic); Aniline (teratology); Cresols (teratology); 1,2-cis-Dichloroethylene (prechronic); Phenol (prechronic, chronic, and teratology); Dibutyl Phtalate (prechronic with in utero exposure); and partial support for complex mixtures. Those studies deferred from 1987 could not be funded at this level.

Activity Descriptions and Expected Accomplishments - Request Level

FY 1988

In addition to the above activities, we are requesting funding for the following new initiatives to be incorporated under the category of user access:

c. Software System Modification/User Access:

1. Artificial Intelligence: Development of an "Expert System" for information retrieval and use in responding to chemical emergencies. This new project will explore how Artificial Intelligence (AI) methods could be used to facilitate and optimize the retrieval and use of information and data under conditions of a chemical emergency. Such a system will enhance State and local health officials usage of computerized health effects information during emergency situations in keeping with the NRT/RRT direction.

   Anticipated Output: The knowledge base for the AI system will be designed with the assistance of anticipated users (primarily staff from ATSDR, CDC, EPA, Coast Guard, and a sampling of State/local responders). Computer programs will be selected and full implementation of expert system capability will be accomplished during FY 1988.

2. Dissemination of Information: In discussions with state and local health departments, one of their greatest needs is for accurate, understandable information about the health effects related to toxic exposure. This initiative is aimed at getting the information in TOXNET to a wider audience, particularly state and local health departments.

Activity Title: Toxicology Data Bases (continued)

Anticipated Output: Working with the Public Health Foundation and other state and local organizations, we will pilot test the utility of computer networking to insure easier access to the NLM databases. The project will also evaluate who is accessing the information and how useful that information is to the user in order to test not only the effectiveness of the system but also the utility of the database information.

Explanation of Change - 1988 Total Request v 1987 President's Budget

a. Increased funds for this category are primarily a result of the increased number of files and summaries to be completed during this fiscal year. We are considerably behind our original projections of completing new files or updating files on priority chemicals. This increase in funding will allow us to get back to the original schedule.

Prepare, update, and/or express update 1,200 to 1,600 Hazardous Substances Data Bank (HSDB) records. Add approximately 46,000 records to TOXLINE; complete registration of 46,000 CERCLA related substances; and prepare 575-750 profile summaries.

b. A slight increase in funds for this activity is requested to support the increased activity in the preceding category. Activities include conducting literature searches and bibliography preparation.

c. Additional funds for this category are requested to support staff and cooperative agreements/contracts dedicated to the new initiatives related to creation of artificial intelligence systems for use by emergency response personnel and for wider dissemination of toxicological information to state and local health personnel. Menu-oriented screens for novice search modes and additional files will be added to TOXNET. The enhanced stand alone capabilities of the MICROCOMPUTER will be enhanced. Additional data bases will also be available and a new SCRIPT will be developed.

d. Additional funds for this category are to support toxicological testing for the following studies: Phenol (prechronic and chronic); 2,4,5-Trichlorophenol (prechronic and chronic); 1,1-Dichloroethane (prechronic and chronic); and Styrene (prechronic).

Depending on the amount of funds made available for testing, some or all of those studies delayed during FY 1987 might be started.

Department of Health and Human Services
FY 1988 Activity Analysis

Activity Title: Exposure and Disease Registries
Responsible Office: Agency for Toxic Substances & Disease Registry

Objectives and Regulatory Requirements

ATSDR is mandated under Section 104(i)(1), in cooperation with the States, to establish and maintain a national registry of serious diseases and illnesses and a national registry of persons exposed to toxic substances. The objective of funding in this budget category is to implement this legislative mandate by enrolling individuals in select exposure registries beginning in FY 1987.

Current and Planned Program

FY 1986

a. Develop Registry Criteria

Anticipated Output: A core staff will be identified in ATSDR to evaluate the need for two specific exposure registries (likely to be 2,3,7,8-TCDD and beta-naphthylamine) and develop draft criteria for enrollment. These recommendations will be peer reviewed by other Federal agencies and then further reviewed by members of the public as well as outside medical and environmental health experts.

FY 1987

a. Develop Registry Criteria

Anticipated Output: Staff will draft RFPs for contracting the actual implementation of two chemical specific exposure registries. Proposals for additional exposure registries will be reviewed, and the need for disease specific registries will be evaluated.

b. Implement Exposure Registries

Anticipated Output: A contract will be signed to implement two chemical specific exposure registries, and it is anticipated that approximately 3,000 - 5,000 individuals will be interviewed for enrollment on those registries.

Activity Title: Exposure and Disease Registries

Activity Descriptions and Expected Accomplishments - Current Services

a. Develop Registry Criteria

Anticipated Output: Staff will draft RFPs for contracting the actual implementation of any additional exposure registries that are needed. Proposals for additional exposure registries will be continue to be reviewed, and the need for any disease specific registries will be evaluated.

b. Implement Exposure Registries

Anticipated Output: The contract signed in FY 1987 will be ongoing and expected to interview for enrollment an additional 3,000 - 5,000 individuals on the two chemical specific exposure registries.

Activity Descriptions and Expected Accomplishments - Request Level

FY 1988

b. Implement Exposure Registries

Anticipated Output: It is estimated that more than 10,000 individuals will need to be interviewed for enrollment for the two chemical specific exposure registries begun in FY 1987; current service level would fall short of that figure. Furthermore, it is anticipated that exposure registries for additional substances will be needed at this time and expanded or new contracts will therefore be required.

Explanation of Change - 1988 Total Request v 1987 President's Budget

b. The original FY 1987 budget request contained no funding request for the establishment of registries. Based on findings from health assessments and health studies conducted in the past year, it has become clear that it will be necessary for ATSDR to establish such registries in the coming year. Because of the high priority of this activity, funding for necessary staff have been reallocated to this project from core monies originally earmarked for other purposes. It is essential, however, that new funds be made available in both FY 1987 and FY 1988 to actually implement needed registries through contracts and/or cooperative agreements.

REQUEST SUMMARY

Department of Health and Human Services
FY 1988 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1986		FY 1987				FY 1988					
	Operational Plan		President's Budget		Operational Plan		Current Services		Target Level		Request Level	
	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)
Scientific Support	52	4,662	62	5,500	62	6,174	62	6,421	62	6,421	70	8,721
Emergency Response	4	877	7	924	7	1,197	7	1,245	7	1,245	11	2,318
Health Surveys	35	14,513	45	10,426	45	9,994	45	10,234	45	10,234	60	16,147
Worker Health and Safety	10	972	1	940	1	292	1	304	1	304	3	360
Toxiclolgy Data Base	0	6,464	4	6,758	4	6,209	4	6,457	4	6,457	6	11,988
Registries	0	0	7	0	7	3,832	7	3,985	7	3,985	7	9,109
ATSDR Minimum Need	101	27,480**	126	24,548	126	27,698	126	28,646	126	28,646	157	48,643
Allowance		27,480		24,548		24,548		25,370		25,370		
Deficit*						3,150		3,276		3,276		

*Represents minimum need for extramural registry activities for FY 1987 and 1988.

**Includes $2,363,000 carryover from FY 1985; $4,000,000 for health studies; and $21,125,000 Congressional appropriation for ATSDR core activities. The OMB mark for FY 1986 is $14,620,000. Actual amount available to date for FY 1986 is $7,214,251 for core activities and $1,076,700 for health studies.

REQUEST SUMMARY

Department of Health and Human Services
FY 1988 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities/ Accomplishments	FY 1986		FY 1987				FY 1988					
	Operational Plan		President's Budget		Operational Plan		Current Services		Target Level		Request Level	
	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)
1. Scientific Support												
a. Consultation & Review	39	2,218	44	3,194	44	3,672	44	3,819	44	3,819	47	4,214
b. Coordination/ Management	13	1,244	18	1,306	18	1,502	18	1,562	18	1,562	21	1,932
c. Training	0	0	0	250	0	250	0	260	0	260	.5	500
d. State Cooperative Agreements	0	1,200	0	750	0	750	0	780	0	780	1.5	2,075
SUBTOTAL	52	4,662	62	5,500	62	6,174	62	6,421	62	6,421	70	8,721

REQUEST SUMMARY

Department of Health and Human Services
FY 1988 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities/ Accomplishments	FY 1986		FY 1987				FY 1988					
	Operational Plan		President's Budget		Operational Plan		Current Services		Target Level		Request Level	
	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)
2. Emergency Response												
a. Health Consultation	4	877	5	510	5	783	5	814	5	814	8	1,228
b. Training	0	0	2	414	2	414	2	431	2	431	3	1,090
SUBTOTAL	4	877	7	924	7	1,197	7	1,245	7	1,245	11	2,318
3. Health Surveys & Investigation												
a. Guidelines for Lab Testing & Epi Studies	10	1,699	10	1,923	10	1,600	10	1,664	10	1,664	10	1,664
b. Site Specific Protocols Development	12	315	12	970	12	1,222	12	1,271	12	1,271	12	1,271

REQUEST SUMMARY

Department of Health and Human Services
FY 1988 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities/ Accomplishments	FY 1986 Operational Plan		FY 1987 President's Budget		FY 1987 Operational Plan		FY 1988 Current Services		FY 1988 Target Level		FY 1988 Request Level	
	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)
c. Pilot Invest. (Lab Support)	3	871	3	252	3	300	3	312	3	312	3	312
d. Birth Defect Studies	6	3,927	6	2,600	6	2,107	6	2,191	6	2,191	6	2,704
e. Sentinel Surveillance	4	3,701	4	681	4	777	4	808	4	808	4	1,436
f. Health Research	0	4,000	10	4,000	10	3,988	10	3,988	10	3,988	25	6,000
g. Risk Assessment	0	0	0	0	0	0	0	0	0	0	0	720
h. Immuno/Neuro	0	0	0	0	0	0	0	0	0	0	0	1,200
i. Surveillance	0	0	0	0	0	0	0	0	0	0	0	240
j. Animal Study	0	0	0	0	0	0	0	0	0	0	0	600
SUBTOTAL	35	14,513	45	10,426	45	9,994	45	10,234	45	10,234	60	16,147

REQUEST SUMMARY

Department of Health and Human Services
FY 1988 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1986 Operational Plan		FY 1987 President's Budget		FY 1987 Operational Plan		FY 1988 Current Services		FY 1988 Target Level		FY 1988 Request Level	
	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)
4. Worker Health and Safety	10	972	1	940	1	292	1	304	1	304	3	360
SUBTOTAL	10	972	1	940	1	292	1	304	1	304	3	360
5. Toxicology Data Base												
a. Data Files	0	1,181	0	873	0	873	0	908	0	908	.5	1,738
b. HWIES	0	53	0	25	0	25	0	26	0	26	.5	53
c. Field Access	0	105	2	310	2	505	2	525	2	525	3	1,797
d. Testing of Chemicals	0	5,125	2	5,590	2	4,806	2	4,998	2	4,998	2	8,400
SUBTOTAL	0	6,464	4	6,798	4	6,209	4	6,457	4	6,457	6	11,988

REQUEST SUMMARY

Department of Health and Human Services
FY 1988 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1986 Operational Plan		FY 1987 President's Budget		FY 1987 Operational Plan		FY 1988 Current Services		FY 1988 Target Level		FY 1988 Request Level	
	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)	FTE	($000)
6. Registries	0	0	7	0	7	3,832	7	3,985	7	3,985	7	9,109
SUBTOTAL	0	0	7	0	7	3,832	7	3,985	7	3,985	7	9,109

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service

Agency for Toxic Substances
and Disease Registry
Atlanta GA 30333

September 4, 1986

Mr. Bruce Engelbert, Director
Office of Program Management
U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20460

Dear Bruce:

Enclosed is a copy of our revised CERCLA budget projections for FY 1987 and for FY 1988 which reflect the newly mandated activities for the Agency for Toxic Substances and Disease Registry (ATSDR) under Superfund Reauthorization per your request. Included are new budget tables for all activities to be undertaken by ATSDR. Narrative descriptions for planned program accomplishments for the coming two years are only included for the newly mandated activities, however, as narratives for existing program activities have already been provided to you in our earlier FY 1988 budget submission.

It is our understanding that ATSDR will receive direct funding under Superfund Reauthorization in the amounts of at least $50 - $60 million, dependent upon the year in question. In keeping with that understanding we would expect that all decisions on allocation of these resources will be made by ATSDR. As the managers of the trust fund monies, we are happy to provide you with all such ATSDR budget projections, and with all needed program and fiscal accounting reports.

As you will see, we have estimated total budget levels for ATSDR at $50 million for FY 1987, and at $55 million for FY 1988. At this point in time we do not anticipate requesting funding beyond these "minimum" levels. Should unforseen expenses occur, however, we would like to keep open the option of discussing budget requirements beyond these levels at some future time. We understand that any such requests for additional funding would require EPA approval.

I have also included a copy of the budget projections for the National Institute for Environmental Health Sciences' newly mandated activities under Superfund Reauthorization. Their current budget projections match the budget levels set for their research and training program by the new law.

Page 2 - Mr. Engelbert

Mr. Dan VanderMeer of NIEHS will also be present at the meeting scheduled for September 10th to discuss their plans for implementing these new Superfund activities. Both he and I will be happy to answer any questions you or your staff might have on any of the enclosed material at Wednesday's meeting.

Sincerely yours,

Georgi Jones, Chief
External Affairs Branch

cc: Dan VanderMeer

Department of Health and Human Services
FY 1987 Activity Analysis

Activity Title: Scientific Support
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Section 104(i) of CERCLA establishes the Agency for Toxic Substances and Disease Registry and requires that in implementing the health related provisions of CERCLA, ATSDR coordinate with all agencies of the Public Health Service as well as other relevant Federal agencies. One specific subsection of this provision, Section 104(i)(3), calls for ATSDR to establish and maintain a listing of all areas closed or restricted in public use because of toxic substance contamination. As a further statutory requirement for activities funded under this budget category, Section 104(b) requires the President to determine the extent of danger to the public's health from release of hazardous substances which has been delegated to HHS by Presidential Executive Order #12316.

Under the 1986 Superfund Reauthorization Amendments, additional mandates for ATSDR include:

- Health Assessments: ATSDR is mandated to perform a health assessment for each facility on the national priority List. There is also a new requirement to perform health assessments at a citizen's request for releases or facilities where individual persons or licensed physicians provide information that individuals have been exposed to a hazardous substance for which the probable source of such exposure is a release.

- Peer Review: Superfund reauthorization requires that all studies and results of research under this section (other than health assessments) shall be reported or adopted only after appropriate peer review. such peer review shall be completed to the maximum extent practicable, within a period of 60 days and shall be conducted by panels consisting of no less than three nor more than seven members, who shall be disinterested scientific experts selected for such purpose by the Administrator on the basis of their reputation for scientific objectivity and the lack of institutional ties with any person involved in the conduct of the study or research under review.

- Health Professional Education: Under reauthorization, ATSDR is required to assemble, develop, as necessary, and distribute to the States, and upon request to medical colleges, physicians, and other health professionals, appropriate educational materials (including short courses) on the medical surveillance, screening and methods of diagnosis and treatment of injury or disease related to hazardous substances (giving priority to those listed in subsection (d)), through such means as the Administrator of ATSDR deems appropriate.

Activity Title: Scientific Support (continued)

- Report to Congress: Two years after enactment, and every two years thereafter, ATSDR must submit a report to Congress detailing activities in the following areas: health assessments, pilot studies, epidemiologic studies, hazardous substances listed, toxicological profiles developed, toxicologic testing conducted, and registries established. In addition, the report should contain an overall assessment, based on the results of activities conducted by the Administrator of ATSDR, of the linkage between human exposure to individual or combinations or hazardous substances due to releases from facilities covered by this Act or the Solid Waste Disposal Act and any increased incidence or prevalence of adverse health effects in humans.

Current and Planned Program

FY 1987

e. Health Assessments: NPL Sites & Citizen Petition

Anticipated Output: ATSDR staff will work with EPA to prioritize sites in concert with the EPA RI/FS schedule, and will complete health assessments on at least 400 of the sites currently on the NPL. In addition, ATSDR will respond to all citizen petitions received during the year.

f. Peer Review

Anticipated Output: ATSDR will survey the various mechanisms used for peer review, assess the pros and cons of each mechanism, and decide which approach would best meet ATSDR's need under the new law. In the interim, ATSDR will establish Ad Hoc Extramural Groups for reviewing completed epidemiologic studies, study protocol designs, registry proposals, and all other health activities undertaken by, or on the behalf of, ATSDR.

g. Health Professional Education

Anticipated Output: ATSDR will develop informational documents such as pamphlets that describe the toxicology, treatment, and further references for specific groups of chemicals. A priority list of substances will be developed for the ones most commonly shipped or those shipped in largest amounts. ATSDR will also begin development of draft curricula for a one semester/quarter course on hazardous substances in the environment.

h. Biennial Report to Congress.

Anticipated Output: The report is not required until FY 1988.

Activity Title: Scientific Support (continued)

Activity Descriptions and Expected Accomplishments

1988

e. Health Assessments: NPL Sites & Citizen Petition

Anticipated Output: ATSDR will complete by December 10, 1988 final health assessments on all sites currently on the NPL. In addition, ATSDR will continue to respond to citizen petitions in a timely fashion.

f. Peer Review

Anticipated Output: A final mechanism for permanent peer review for ATSDR will be established, and all ATSDR activities (with the exception of health assessments) will have the required peer review.

g. Health Professional Education

Anticipated Output: ATSDR will complete sets of materials, including audio-visual aids and handout packages, for the use of ATSDR staff personnel (particularly the Regional representatives) and other knowledgable persons to give short presentations to professional meetings at the local, State, and national levels. Materials that would be suitable for introduction into the certification and recertification process of EMT's, Emergency Room Nurses, and physicians will also be developed. We will begin development of wider-ranging, more effective techniques utilizing the latest technical advances such as: Production of teleconferences; utilization of such new techniques as Compact Disc- Read Only Memory (CD-ROM) and Compact Disc-Interactive (CD-I), which offer the potential of much greater accessibility.

h. Report to Congress

Anticipated Output: ATSDR will develop and publish a report on all Agency activities, as well as an analysis of the known relationships between exposure to toxic substances and human illness.

Department of Health and Human Services
FY 1987 Activity Analysis

Activity Title: Health Surveys and Investigations
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Sections 104(i)(1) & (5) require ATSDR to maintain both exposure and disease registries, and to determine the relationship between exposure to toxic substances and illness. Activities in this decision unit include the development of site specific health study protocols, the development of standard laboratory tests, pilot testing and studies at multiple sites with similar toxic contamination, and implementation of general or multiple site health studies.

Under the 1986 Superfund Reauthorization Amendments, additional mandates for ATSDR include:

- Lead Study: Conduct a study on the extent of lead poisoning from environmental sources including identifying and ranking all sites where children are known to be exposed.

Plan to Accomplish

1987

f. Lead Study

Anticipated Output: Through an interagency agreement or direct contracting, ATSDR will design a data collection system to collect required information on lead exposure in metropolitan areas. With the assistance of other Public Health Service Agencies, ATSDR will develop the mandated report analyzing the effects of lead exposure to children, and identifying/ranking lead contaminated sites.

FY 1988

f. Lead Study

Anticipated Output: The mandated report will be finalized, peer reviewed, and published.

Department of Health and Human Services
FY 1987 Activity Analysis

Activity Title: Toxicology Data Bases
Responsible Office: Agency for Toxic Substances and Disease Registry

Objectives and Regulatory Requirements

Establish and maintain an inventory of literature, research, and studies on the health effects of toxic substances (CERCLA, Section 104(i)(2)). Conduct periodic surveys and screening programs to determine relationships between exposure to toxic substances and illness (CERCLA, Section 104(i)(5) & 111(c)(4)). Activities include the establishment and maintenance of an up-to-date data base on the health effects of toxic substances that is easily understood and accessible to its users; and the expansion of our knowledge about the relationship between toxic substances and illness through toxicological testing.

Under the 1986 Superfund Reauthorization Amendments, additional mandates for ATSDR include:

o. Within six months of passage of the new bill, ATSDR must prepare a list of the 100 most hazardous substances (and 25 more per year thereafter) as well as preparing toxicological profiles of each such substance. Such profiles shall include, but not be limited to (a) an examination, summary and interpretation of available toxicological information and epidemiologic evaluations on a hazardous substance in order to ascertain the levels of significant human exposure for the substance and the associated acute, subacute, and chronic health effects; (b) a determination of whether adequate information on the health effects of each substance is available; and (c) where appropriate, and identification of toxicological testing needed.

Plan to Accomplish:

FY 1987

f. Toxicological Profiles

Anticipated Output: In coordination with EPA, ATSDR will establish a list (in priority order) of the 100 most hazardous substances commonly found at Superfund sites. ATSDR will then prepare toxicological profiles on at least 25 of these substances.

FY 1988

f. Toxicological Profiles

Anticipated Output: ATSDR will prepare toxicological profiles on at least 25 additional substances.

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request	FY 1988 Request	FY 1989 Request	FY 1990 Request
	($000)	($000)	($000)	($000)
Scientific Support	13,467	14,162		
Emergency Response	1,250	2,318		
Health Surveys	17,571	15,176		
Worker Health and Safety	292	307		
Toxicology Data Base	13,588	14,928		
Registries	3,832	8,109		
Total	50,000	55,000	at least 60,000	at least 60,000

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request	FY 1988 Request	FY 1989 Request	FY 1990 Request
	($000)	($000)	($000)	($000)
1. Scientific Support				
a. Consultation & Review	4,214	4,425		
b. Coordination/ Management	1,932	2,028		
c. Training	500	525		
d. State Coopera-tive Agreements	2,075	2,179		
*e. NPL Hlth Assess/ Citizen Petitions	1,756	924		
*f. Peer Review	640	550		
*g. Hlth Professional Education	2,350	3,531		
SUBTOTAL	13,467	14,162		

*New mandates under Superfund reauthorization.

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request	FY 1988 Request	FY 1989 Request	FY 1990 Request
	($000)	($000)	($000)	($000)
2. Emergency Response				
a. Health Consultation	510	1,228		
b. Training	740	1,090		
SUBTOTAL	1,250	2,318		
3. Health Surveys & Investigation				
a. Guidelines for Lab Testing & Epi Studies	1,664	1,665		
b. Site Specific Protocols Development	1,271	1,271		

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request ($000)	FY 1988 Request ($000)	FY 1989 Request ($000)	FY 1990 Request ($000)
2. Emergency Response				
a. Health Consultation	510	1,228		
b. Training	740	1,090		
SUBTOTAL	1,250	2,318		
3. Health Surveys & Investigation				
a. Guidelines for Lab Testing & Epi Studies	1,664	1,665		
b. Site Specific Protocols Development	1,271	1,271		

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request	FY 1988 Request	FY 1989 Request	FY 1990 Request
	($000)	($000)	($000)	($000)
c. Pilot Invest. (Lab Support)	312	312		
d. Birth Defect Studies	2,704	2,704		
e. Sentinel Surveillance	1,436	1,436		
f. Health Research	5,000	5,029		
g. Risk Assessment	720	756		
h. Immuno/Neuro	1,200	1,260		
i. Surveillance	240	252		
j. Animal Study	600	630		
*k. Lead Study	2,424	0		
SUBTOTAL	17,571	15,176		

*New mandate under Superfund reauthorization.

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request	FY 1988 Request	FY 1989 Request	FY 1990 Request
	($000)	($000)	($000)	($000)
4. Worker Health and Safety	292	307		
SUBTOTAL	292	307		
5. Toxicology Data Base				
a. Data Files	1,738	1,738		
b. HWIES	53	53		
c. Field Access	1,797	1,797		
d. Testing of Chemicals	7,200	8,400		
*e. Tox Profiles	2,800	2,940		
SUBTOTAL	13,588	14,928		

*New mandate under Superfund reauthorization.

SUPERFUND REAUTHORIZATION
REQUEST SUMMARY

Department of Health and Human Services
FY 1987 Superfund Budget Request Analysis
(Dollars in Thousands)

Responsible Office: Agency for Toxic Substances and Disease Registry

Activities Accomplishments	FY 1987 Request	FY 1988 Request	FY 1989 Request	FY 1990 Request
	($000)	($000)	($000)	($000)
6. Registries	3,832	9,109		
SUBTOTAL	3,832	9,109		
TOTAL	50,000	55,000	at least 60,000	at least 60,000

APPALACHIAN REGIONAL COMMISSION

OFFICE OF THE
FEDERAL CO-CHAIRMAN
1666 Connecticut Avenue, N.W.
Washington, D.C. 20235
202/673-7856

February 13, 1987

Senator Quentin Burdick
Chairman
Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Burdick:

In response to the questions contained in your letter of January 28, 1987 concerning the impact of the President's FY 1988 budget request on the Appalachian Regional Commission, the following is provided:

1Q. Please contrast the FY 88 request with the FY 87 request and the appropriated level. What effect will proposed increases or reductions have on agency programs?

A. The Administration proposed to terminate the Commission as of September 30, 1986 and therefore, requested no funds for it in the FY 1987 budget. Maintaining that position, the Administration proposed to terminate the Commission as of September 30, 1987 and, therefore, has requested no funds for it in the FY 1988 budget. Actual appropriations for the Commission in FY 1987 totalled $105 million.

The proposed termination of the Commission will preclude the funding of further economic development projects in Appalachia and of approximately 304 miles of the planned highway system.

2Q. What personnel increases or decreases are being proposed in FY 88 compared with FY 87 levels?

A. As was the case in FY 1987, no funds for salary expenses have been requested by the Administration for FY 1988. Therefore, present staff of ARC would be terminated with the closedown of the Commission. The number of staff so effected would be 8 in the federal office and 58 in the Commission.

3Q. Please discuss any proposed recissions, deferrals, or supplements proposed for FY 87.

A. The Administration has proposed that $31,059,000 of unobligated balances of the Commission's $105 million FY 87 allocation be recinded. This recission would reduce funds available in the Commission's Appalachian Development Highway Systems by $3,475,000, Jobs and Private Investment by $21,848,000, Distressed Counties by $4,505,000 and Local Development District and Technical Assistance Programs by $1,231,000.

It is my understanding that OMB is requesting the Congress to make available $10,000,000 of the ARC unobligated funds for the proposed close-down activities of the Agency only after October 1, 1987.

4Q. Please indicate if any legislative initiatives are necessary, or are being considered, to implement any part of the agency's FY 88 budget request. If so, please describe these proposals and specify the budgetary impact of each provision.

A. As stated previously, the President has proposed terminating the Commission as of the end of FY 88. Thus, no legislative initiatives are being considered.

Sincerely,

Winifred A. Pizzano

Winifred A. Pizzano
Federal Co-Chairman

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, DC 20310-0103

27 FEB 1987

Honorable Quentin N. Burdick
Chairman
Environment and Public Works Committee
United States Senate
Washington, D. C. 20510-3402

Dear Mr. Chairman:

Thank you for your recent letter requesting information on the Fiscal Year 1988 Civil Works Budget of the Army Corps of Engineers.

On February 19, 1987, I presented testimony before the Senate Appropriations Subcommittee on Energy and Water Development on the Fiscal Year 1988 Civil Works Budget. For your information and use, a copy is enclosed.

Also enclosed are responses to the questions raised in the body of your letter, together with responses to most of the specific questions attached to your letter from you and other Committee Members. Moreover, I have included responses to questions posed by Committee staff at the Corps briefing on the Fiscal Year 1988 Budget held on January 28, 1987. Responses to the few remaining questions will be submitted next week.

If I can be of any further assistance, please do not hesitate to contact me.

High regards,
~~Sincerely,~~

Robert K. Dawson
Assistant Secretary of the Army
(Civil Works)

Enclosures

DEPARTMENT OF THE ARMY

OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

COMPLETE STATEMENT

OF

ROBERT K. DAWSON

ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

BEFORE THE SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ON THE FISCAL YEAR 1988 CIVIL WORKS BUDGET

FEBRUARY 19, 1987

STATEMENT OF ROBERT K. DAWSON
ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)
BEFORE THE SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
ON THE FISCAL YEAR 1988 CIVIL WORKS BUDGET

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

INTRODUCTION

I am pleased to appear before your subcommittee today to present the Fiscal Year 1988 budget recommendations for the Civil Works Program of the Army Corps of Engineers. The Chief of Engineers, Lieutenant General E. R. Heiberg III, the Director of Civil Works, Major General Henry J. Hatch, and Mr. Don Cluff, Chief of Programs, are with me and will assist in the presentation of today's testimony. Also present, close at hand, are Mr. Steven Dola, my Deputy for Budget, Dr. G. Edward Dickey, my Deputy for Program Planning, and Dr. Bory Steinberg, Chief of Policy of the Corps.

This appearance is noteworthy in that it follows passage of the Water Resources Development Act of 1986, Public Law 99-662, which confirmed the reforms to the water resources program agreed to by the Congress and the

Administration and incorporated by this subcommittee into the funding of the Fiscal Year 1985 and Fiscal Year 1987 new construction starts. Hopefully, the hiatus in project authorizations, spanning more than a decade, is now over, and we can once again concentrate all our resources on addressing the nation's water resource problems and opportunities. With the passage of this Act, Congress and the President have provided the nation's water program the direction it needs. I personally wish to acknowledge and thank this subcommittee for its leadership. Your steadfast commitment has provided us the opportunity to develop a strong, vibrant program. And, without your recognition of the budgetary realities and restraint on funding new construction starts, reform may have been, indeed, would have been, impossible to achieve.

My statement addresses these topics:

o Fiscal Year 1988 Budget Request,

o Budget Principles and Priorities, and

o Proposed Legislation.

FISCAL YEAR 1988 CIVIL WORKS BUDGET REQUEST

The budget for Fiscal Year 1988 continues the President's commitment to support responsible development of the nation's water resources. The program reflects a realistic balance between the objective of accommodating an increasing capital investment program of planning, engineering, and construction of new projects and the practical necessity of retaining an effective operation and maintenance program for those projects now in use.

The budget is best understood in relation to the following Public Law 99-662 reforms which it embodies:

- Enhanced non-federal cost sharing and financing of construction projects;
- New sources of revenues to fund harbor maintenance in the form of ad valorem fees to be collected under the newly enacted Harbor Maintenance Revenue Act; and
- Increased non-federal participation in project formulation and development through study cost sharing.

Summary

The FY 1988 program totals $3.5 billion and is predicated on Federal appropriations of some $3.27 billion and associated non-federal contributions of $233 million. The Federal budget request, summarized by appropriation account in Table A, which is attached, includes the appropriation of some $187 million in receipts from two trust funds supporting the Civil Works Program: the Inland Waterways Trust fund and the Harbor Maintenance Trust Fund. Offsetting receipts that would be collected under existing law, $20.1 million, and under pending legislation, $19.2 million, would result in net Federal appropriations of $3.23 billion.

Construction, General

This is a remarkably good budget request, considering the necessity for budget restraint, and could not have been accomplished without the reforms embodied in P.L. 99-662. Federal and non-federal investment in the projects and programs funded under the Construction, General, account total just over $1.4 billion. This is a significant milestone; such an investment level has not been programmed since Fiscal Year 1982. It includes funding of 60 construction projects started or scheduled to be started during the three year period, FY 1985 through FY 1987, and funds to initiate construction for up to 13 more projects in FY 1988. The name and costs of the FY 1988 recommended new construction starts are shown on Table B, which also is attached to this statement.

The key to sustaining such an investment level is the enhanced non-federal share of project costs and the financing of that share during construction. In FY 1985, the year when work on 36 of the 60 projects was first funded, contingent upon increased contributions from project sponsors, the required cash contributions from local interests totaled just under $50 million or only 5 percent of the Federal appropriation. Execution of the FY 1988 budget envisions cash contributions of some $221 million and the appropriation of some $38 million from the Inland Waterway Trust fund. Thus, appropriation of general funds actually will total $1.15 billion, with the non-federal share amounting to almost 23 percent of the general fund appropriations. And the level of non-federal contribution will continue to rise as the enhanced cost sharing provided for an P.L. 99-662 applies to a greater portion of the projects under construction.

Operation and Maintenance, General

Under the reforms enacted in PL 99-662, the financing of operation and maintenance of all future projects, except those having costs associated with commercial navigation improvements, is a non-federal responsibility. Such provisions were incorporated in the Local Cooperation Agreements for the FY 1985 new construction starts. In the case of commercial harbors, a new source of revenue, receipts from an ad valorem fee, will be used to help fund up to 40 percent of their operation and maintenance costs. Therefore, the O&M program can be expected to stabilize around the current level, with adjustments made principally to accommodate increases due to inflation, projects now under construction and scheduled to be operated as a Federal project, and the major rehabilitation of the older projects. Of the $1.47 billion Operation and Maintenance budget, it is anticipated that upward of $149 million in receipts will be available for appropriation from the newly established Harbor Maintenance Trust Fund.

Reforms in the general regulatory program over the last five years have yielded considerable savings through improved efficiency. For instance, the average permit evaluation processing time is now 78 days compared to 130 days in 1982. We need to maintain this quality and level of performance that we have worked so hard to achieve. The FY 1988 budget includes $55.3 million for the general regulatory program. Moreover, Mr. Chairman, this same amount of $55 million, which is $5 million more than is allocated in the report accompanying the Continuing Resolution, is needed in FY 1987. Accordingly, it is our intention to reprogram $5 million in available O&M funds in the current year. Without additional funds, we will experience increased application processing time, reduced coordination with others, delayed jurisdiction determinations, difficulties in complying with several legal mandates, and delays in environmental and other studies. These delays and impacts are anticipated largely because of personnel reductions which would be incurred without adequate funding. The regulatory program is very labor intensive so that we would have to cut our full time professional staff by 8% and eliminate most of our temporary and part time personnel.

Recent developments, such as more restrictions and procedural requirements on nationwide permits, jurisdiction over more isolated waters, expanded coordination concomitant with the new interagency agreements, and additional duties in controlling certain solid wastes, have added to the output requirements of our regulatory staffs. Increased construction activity in the private sector, apparently stimulated by lower interest rates and improved economic conditions, is also increasing the number of applications being submitted. Regional situations such as migratory bird provisions and Great Lakes flooding have required additional staff reviews. We have made greater use of general permits, especially those crafted on viable local or state regulatory programs to help us with a part of this surge in permit activity.

General Investigations

In the study program we are successfully implementing the two-phase study process provided for in Public Law 99-622. The new law, in fact, parallels the approach to planning adopted for the Civil Works Program over the last several years. There will be, first, a reconnaissance phase study conducted at full Federal expense to determine the likelihood that planning will result in a project which actually will be constructed. Second, should the project sponsor and Federal Government wish to proceed, there will be a feasibility phase study, equally cost shared, to establish the scope and cost of the project, as well as determine its engineering, economic and environmental feasibility. The project recommended in the Definite Project Report submitted to Congress for authorization certainly should be implementable: not only will the project have passed the usual tests of feasibility, but the sponsor, through study cost sharing, will have agreed on the desirability of the project.

Recovery of the non-federal share of the costs of preconstruction engineering and design is dependent upon initiation of project construction. The project sponsor pays his share of these costs along with his share of the other construction costs during the construction period. How fast planning and design of the project can proceed, however, is related to the technical and financial capabilities involved. This is a concern for both the sponsor and for us. And, because of this concern, we have modified our programming and budgeting process in order to minimize the funding and the time gaps for implementing projects.

For those projects that have been subject to the discipline of study cost sharing, we have budgeted $1 million under the General Investigations account to initiate preconstruction engineering and design. This will allow for continued funding for up to six projects while the Definite Project Reports are being reviewed within the Executive Branch and final recommendations are being formulated for submittal to Congress. Continuity in the partnership arrangements will be contingent upon favorable action and agreement at each of the project review checkpoints. We also have budgeted an additional $3.7 million to initiate the preconstruction engineering and design of 8 more projects for which the feasibility phase has already been completed.

This emphasis on continuing the work, and on responding to the commitments, evolving from both the reconnaissance and feasibility phases of project studies has resulted in a creditable program and a budget request of $133 million for the General Investigations account. This approximates the total appropriated for Fiscal Year 1987. The associated non-federal contribution will add another $10 million to the program.

BUDGET PRINCIPLES AND PRIORITIES

While the enhanced cost sharing and financing provisions of PL 99-662 have enabled us to spread the Federal dollar over more studies, projects and activities, the fiscal realities of the budget deficit have limited the availability of additional funds for the Civil Works program. Accordingly we have had to establish principles and priorities for developing a program that achieves the greatest efficiencies in terms of ongoing commitments and investment returns.

Ongoing Commitments

An immediate priority is early implementation of cost sharing contracts for the new construction starts approved since FY 1985. We have concentrated on translating the new cost sharing rules into operational guidance and criteria which can be applied to individual new starts as they are funded. These policies are needed before we can proceed to negotiate the Cooperative Agreements for the FY 1987 new starts and, in some cases, modify those agreements already in effect for the FY 1985 new starts.

We are also concentrating on certain program initiatives contained in the 1986 Authorizing Act which require early attention. Included are a number of navigation provisions, including the formation of the Inland Waterways Users Board, which is to advise the Secretary of the Army and the Congress regarding priorities for construction and rehabilitation of the inland waterways system. Then, too, there is the need to establish policy concerning credits for construction activities by local sponsors and procedures for non-federal implementation of Federal flood control and commercial navigation works. The numerous environmental provisions are being addressed by a special task force representing a broad cross section of our organization. Finally, we have undertaken a systematic review of each of the project authorization provisions to identify the appropriate response in the case of individual project authorizations. Some of these decisions are reflected in this year's budget; others will be reflected in the budget in subsequent years as resources and priorities permit.

Functional Priorities

We are concentrating our resources on the traditional mission of flood control and commercial navigation. Providing fully vendible outputs of municipal and industrial water supply and hydropower generation, even if funded on a pay-as-you-go basis by the non-federal sponsor, is contingent upon providing those services in conjunction with the traditional outputs.

Funding limitations also warrant assigning recreation a lower priority and deferring recreational investments whenever there are more pressing demands to be met. It is the Administration's intent to reduce Federal competition with the private and non-federal public sectors in providing recreation opportunities. It is our intent to cost share only those facilities that satisfy the basic needs of the public who want to enjoy the recreational opportunity provided by the Federal project. Accordingly, Federal funds are to be used to support development of recreation facilities only when the recreation benefits are less than 50 percent of the total benefits and the recreation potential for those benefits are either created by projects formulated and justified for other purposes or when the recreational benefits are produced as the result of investment for other project benefits; for example, recreation benefits produced by a breakwater for commercial navigation.

Another aspect of our policy is to allow non-federal local sponsors (state, county or city agencies) to enter into a third party agreement for the development of needed recreation facilities. A most recent example of this has occurred at the Corps' Patoka Lake, Indiana, project. There, the Indiana Department of Natural Resources has selected an investment group to finance and build a $70 million, 1,800 acre recreation resort. The project land is being sub-leased from the State. It is estimated that the project will create 1,700 to 2,500 new jobs.

At the same time, we are looking closely at policies governing the investments in flood control projects which encourage the increased production of "surplus crops", that is, crops directly involved in agricultural price support programs. Planning for investments to increase production of such crops is, for the short term at least, inconsistent with current Federal programs to take land out of production and/or reduce Federal outlays in support of these crops.

And, finally, we also are curtailing or deferring those maintenance activities which can be delayed without critical operational or economic consequences. Such programming actions involving low priority work are consistent with this subcommittees action on the FY 1987 budget.

Investment Considerations

In selecting new construction starts, each project had to meet a variety of tests. First, the project had to be ready from an engineering standpoint so that, if in fact it were funded, construction could be initiated within the budget year. Second, the project had to meet all the necessary environmental requirements including authorized mitigation measures. Third, the project has to enjoy the support of local sponsor(s), who would be able to meet the new cost sharing requirements. Fourth, the project had to be in accord with our priority outputs, which, as I indicated, are essentially navigation and flood control. And, of course, the project has to have substantial economic returns, that is, it has to have a healthy benefit cost ratio. Ultimately, these criteria are looked at in combination, and a list of projects which can be accommodated within the available funds is selected. The list of projects recommended for FY 1988 best meets the criteria that I have outlined.

In evaluating the economic worth of a project, the benefit cost ratio was computed based on the average market yield for outstanding, comparatively long-term obligations of the U.S. Treasury. For the FY 1988 new starts, the discount rate was 8 7/8 percent. However, the projects we have recommended as new construction starts have a higher rate of return. The benefits of the selected projects exceed their costs, exclusive of recreational considerations, based on a 10 percent rate of return, the yield which can be realized from alternative investments in the private sector.

PROPOSED LEGISLATION

Harbor Maintenance

With the newly enacted Harbor Maintenance Trust Fund in place, it is estimated that, by the close of Fiscal Year 1987, some $66.8 million will have been collected and accrued in the trust fund. By law, these funds should be used to finance the maintenance work accomplished at commercial harbors and reduce the amount required from the general fund of the Treasury. Accordingly, a Fiscal Year 1987 supplemental request to appropriate the receipts from the Trust Fund as they become available has been submitted by the President for Fiscal Year 1987.

As you know, the Secretary of Treasury is responsible for implementing the Harbor Maintenance Trust Fund legislation. However, we are working closely with the United States Customs Service which is developing the implementing regulations on behalf of the Treasury Department. Interim regulations are scheduled to be in place by March 1, 1987, and final regulations are scheduled to be in place by April 1, 1987. In this connection, Mr. Chairman, we have been working with them to establish guidelines and to set up the mechanics of collecting the necessary waterborne commerce data to serve as a basis for collection and enforcement of the value tax to be levied on commercial cargo. We anticipate that additional programming and processing will be necessary to provide Customs with data in a usable format and a reasonable timeframe. While assuming this new responsibility, we need to maintain our ability to continue the collection and compilation of statistics on the waterborne commerce of the United States which also are used to determine the proper support for completed projects and to aid in developing projections for proposed improvements. The FY 1988 budget includes $3.5 million for this work. This is an increase of $450,000 over that which is required in FY 1987. The increase is necessary to develop a new state-of-the art computer software system to enable computers to accomplish much of the work currently being done by personnel. After development is complete in FY 1989, we expect furture budgets to return to past levels. The report accompanying the Continuing Resolution included $2.5 million, which is $522,000 less than what is needed in FY 1987. Therefore, it is our intention, Mr. Chairman, to reprogram available O&M funds in the amount of $522,000 to the Waterborne Commercial Statistics Program in the current year.

Legislation also is being prepared by the Department of Transportation to restore the direct use of the collected tolls to fund the operation and maintenance of the Saint Lawrence Seaway rather than have the tolls deposited into, and then appropriated out of, the Harbor Maintenance Trust fund as the Harbor Maintenance Revenue Act of 1986 now requires. Rebates to shippers, as authorized in P.L. 99-662, would continue to be paid out of the Harbor Maintenance Trust Fund.

Recreation User Fees

We are resubmitting a legislative proposal that would expand our authority to collect fees for the use of project recreation lands and facilities. The current fee program is limited to the collection of fees for specialized recreation services or facilities (e.g. campgrounds). The Corps is currently prohibited from collecting entrance or admission fees by Section 210 of Public law 90-483. Public law 93-303 limits the Corps to collection of fees for use of highly developed campgrounds and further provides that one free campground will be provided at each project where camping is permitted. The proposal would eliminate these restrictions and would place the Corps on a comparable basis with other agencies concerning the collection of recreation use fees.

Employee Costs

A second supplemental to the FY 1987 appropriation also has been submitted as part of the President's budget. Enactment of the new Federal Employee Retirement System and the Federal employee pay raise resulted in a combined increase to our operating costs of $37.6 million in FY 1987. Review of our FY 1987 program indicated the ability to absorb all of the increase. However, authority is being sought to transfer $3.2 million from the appropriations for the Construction, General, account to the General Expenses account where there is a shortfall which cannot be met within available funds.

Rescission

The President has submitted legislation to rescind the funds and eliminate the legislative directive to upgrade and repair a privately-owned hydroelectric dam which is not a Federal responsibility. Actions to correct any deficiency so as to maintain the project's Federal license should be financed by the dam's owners and recovered through the sales of hydropower, as is the case with all other Federally licensed hydropower facilities.

CONCLUSION

Financial constraints and the need to prioritize the work eligible to be funded preclude the undertaking of new, non-traditional programs and activities. This also requires a consistent application of the cost sharing and financing principles of the Authorizing Act. We need your help to accomplish these goals. We need to avoid the directives that require us to repair deficiencies that, by law, are the responsibility of others— the relocation of a roadway or bridge outside the boundaries of a Corps reservoir is an example of such a directive.

Nor should we be the speculative developer, trying to provide a catalyst for future regional growth when realistic economics indicate such projects are not cost effective. Examples of such developments include the Red River Waterway project and funding the construction of what essentially are single-purpose water supply projects in areas where other reservoirs exist with surplus, unsold storage.

Equally important, we need to avoid special treatment in the form of cost sharing exemptions and exceptions. Consistency in the application and treatment of the cost sharing and financing reforms is essential. Only then will we realize the credibility that cost sharing will bring to national water resources development.

The FY 1988 program and budget show strong support for the traditional project purposes of the Corps of Engineers. They continue the practice of using the principle of high return on investment as a major determinant for new work. The new starts that you will see in the budget were selected, in a large part, based on the fact that their benefits — the benefits that will come back to the taxpayers — far exceed the cost of those projects. The budget also provides for continued construction funding for those FY 1985 and FY 1987 new construction projects for which signed Local Cooperation Agreement are forthcoming. It also reflects a new budget process designed to ensure the continuity of work on marketable projects and to ensure the early identification of projects which cannot be supported by the Corps or the project sponsor. The unsupportable projects are the ones we need to stop in order to minimize Federal expenditures as early as possible. How do we do that? We avoid Federal competition with the private and non-federal public sectors in the planning and developing of hydropower production, municipal and industrial water supply and recreational facilities. We also continue our past policy of postponing low priority work such as maintenance of low use waterway segments and/or harbors and deferring work on those projects that no longer have good economics.

The change in the Civil Works programming and budgeting process, moreover, will be very helpful. Working within the framework of Public Law 99-662, we have devised a system which will allow projects to move through the planning and construction phases without the delays that we have seen in the past.

We anticipate that there will be an effective screening of projects appropriate to each phase of the planning and review process. This anticipation is based upon the fact that the project sponsor will be involved in the preparation of plans for the project. The local sponsors will be paying, for the first time, a significant part of not only the project itself — the construction — but also the planning, the design, and the study of the projects. This will eliminate, at an early stage, unproductive projects, and thus, is an integral part of our efforts with the Congress to give the Civil Works Program the credibility necessary to enable it to compete effectively for scarce budgetary resources.

This completes my statement, Mr. Chairman.

TABLE A
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS - CIVIL WORKS
FY 1988 CIVIL WORKS PROGRAM
(DOLLARS IN THOUSANDS)

	FEDERAL FUNDS				NON-FEDERAL FUNDS			
	TRUST FUNDS				RIVER AND HARBOR CONTRIBUTED FUND a/			
APPROPRIATION TITLE	INLAND WATERWAY	HARBOR MAINTENANCE	GENERAL FUNDS	TOTAL FEDERAL BUDGET REQUEST	AUTHORIZED	ANCILLIARY	TOTAL	TOTAL PROGRAM FUNDING
GENERAL INVESTIGATIONS	-	-	133,000	133,000	10,000	-	10,000	143,000
CONSTRUCTION, GENERAL	38,000	-	1,150,000	1,188,000	221,000	15,000	236,000	1,424,000
OPERATION & MAINT., GEN	-	149,200	1,320,800	1,470,000 b/	-	2,000	2,000	1,472,000
FLOOD CONTROL, MR&T	-	-	317,000	317,000	2,000	-	2,000	319,000
GENERAL EXPENSES	-	-	128,200	128,200	-	-	-	128,200
FLOOD CTRL. & COASTAL EMERG	-	-	26,000	26,000	-	-	-	26,000
REVOLVING FUND	-	-	-	-	-	-	-	-
PERMANENT APPROP.	-	-	9,000	9,000	-	-	-	9,000
TOTAL	38,000	149,200	3,084,000	3,271,200	233,000	17,000	250,000	3,521,200
OFFSETTING RECEIPTS								
UNDER EXISTING LAW	-	-	20,100	20,100				
PROPOSED LEGISLATION c/	-	-	19,200	19,200				
NET TOTAL	38,000	149,200	3,044,700	3,231,900				

a/ Authorized - The non-Federal cash contribution required under terms of existing and proposed agreements.
Ancilliary - Estimated cost of unauthorized work requested by non-Federal interests and done on a reimbursable basis.

b/ Includes $12.0 million to be derived from the Special Recreation Use Fee account.

c/ Increased recreation user-fees.

TABLE B
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS - CIVIL WORKS
FY 1988 RECOMMENDED NEW CONSTRUCTION STARTS
(Dollars in Millions)

PROJECT TYPE/NAME	STATE	FY 1988 BUDGET REQUEST	TOTAL FIRST COST	FINANCING	
				FEDERAL	LOCAL
FLOOD CONTROL					
Alamogordo	NM	2.00	27.20	20.40	6.80
Mingo Creek	OK	2.40	131.00	80.90	50.10
North Branch Chicago River	IL	2.00	24.90	16.70	8.20
Oates Creek, Richmond County	GA	0.40	15.64	7.94	7.70
Puerco River at Gallup	NM	0.76	7.30	5.50	1.80
Reno Beach Howard Farms Area	OH	1.18	7.41	5.56	1.85
Rio Grande Floodway, Truth or Consequences Unit	NM	0.70	16.00	12.00	4.00
State Road and Ebner Coulees	WI	3.20	35.06	26.30	8.76
Westerly Creek	CO	0.70	11.77	8.83	2.94
SUBTOTAL FOR 9 PROJECTS		13.34	276.28	184.13	92.15
COMMERCIAL PORTS					
Charleston Harbor	SC	8.00	88.50	64.88	23.62
Manatee Harbor	FL	2.40	21.57	9.45	12.12
Oakland Inner Harbor	CA	3.80	31.20	19.20	12.00
Richmond Harbor	CA	0.90	26.80	20.10	6.70
SUBTOTAL FOR 4 PROJECTS		15.10	168.07	113.63	54.44
TOTAL FOR 13 PROJECTS		28.44	444.35	297.76	146.59
AS PERCENT OF TOTAL FIRST COST			100.00	67.01	32.99

ANSWERS TO QUESTIONS RAISED IN THE JANUARY 28, 1987, LETTER FROM SENATOR BURDICK AND SENATOR STAFFORD

QUESTION: Please contrast the FY88 request with the FY87 request and the appropriated level. What effect will proposed increased or reductions have on agency programs.

ANSWER: For General Investigations, the FY87 budget request was $127 million, the FY87 appropriation was $136.3 million, and the FY88 budget request is $133 million. For Construction, General including appropriations from the Inland Waterways Trust Funds the FY87 request was $1.07 billion, the FY87 appropriation was $1.15 billion, and the FY88 request is $1.19 billion. For Operation and Maintenance, General, including appropriations of any receipts from the Harbor Maintenance Trust fund, the FY87 request was $1.42 billion, the appropriation was $1.39 billion, and the FY88 request is $1.47 billion. For the Mississippi River and Tributaries account, the FY87 request was $298 million, the appropriation was $310.8 million, and FY88 request is $317 million. For General Expenses, both the FY87 request and appropriation were $115 million, and the FY88 request is $128.2 million along with a request to transfer $3.2 million from the Construction, General account in FY87. For Flood Control and Coastal Emergencies the FY87 request was $25 million, the appropriation was $10 million, and the FY88 request is $26 million. For the Revolving Fund, both the FY87 request and appropriation were $12 million, while no funds were requested in FY88. For the Permanent Appropriations account, the FY87 request and appropriation were $9 million, as is the FY88 request.

Overall, the FY88 request of $3.27 billion is some $200 million above last year's request and some $140 million greater than the FY 1987 appropriations. It includes: (1) funding to meet our program commitments resulting form last year's appropriations, including the local cooperation agreements for our ongoing studies and construction projects, (2) funding to continue the operation and maintenance of existing and recently completed

Corps projects; (3) funding to initiate the recommended new study and construction starts, and (4) funding increases for selected programs. The FY 1988 Budget Request will enable the Corps of Engineers to effectively address the nation's water resources problems and opportunities.

QUESTION: What personnel increases or decreases are being proposed in FY88 compared with FY87 levels?

ANSWER: The manpower ceiling for FY88 is the same as for FY87.

QUESTION: Please discuss any proposed rescissions, deferrals or supplementals proposed for FY87.

ANSWER: Two supplementals have been proposed for FY87. One would transfer $3.2 million from the Construction, General account to the General Expenses account where there is a shortfall in payroll costs that resulted from the FY 1987 enactment of the new Federal Employee Retirement System and pay raise; a shortfall that cannot be met within the account's available funds. The other supplemental would appropriate an estimated $66.8 million in receipts expected to accrue to the newly established Harbor Maintenance Trust Fund rather than use the general funds appropriated to finance the maintenance of our harbor projects in FY 1987. In addition, the President has submitted legislation to rescind the funds and eliminate the legislative directive to upgrade and repair a privately-owned hydroelectric dam which is not a Federal responsibility.

QUESTION: Please indicate if any legislative initiatives are necessary, or are being considered, to implement any part of the agency's FY 88 budget request. If so, please describe these proposals and specify the budgetary impact of each provision.

ANSWER: The FY 88 budget indicates increased receipts from collection of special recreation user fees. These receipts would be used to offset budget requests. This increase in receipts is dependent upon enactment of additional legislation which we propose to forward to the Congress in the near future. Our proposal would authorize the collection of certain recreation user fees at water resources development areas administered by the Department of the Army. The proposal would remove existing restrictions on our authority to impose reasonable charges for admission to and use of certain developed recreation areas and would remove the requirement to provide one free campground at each project where camping is permitted. The charges would provide the Department of the Army with authority comparable to that which is available to other Federal land and water resources development agencies. The proposal, however, is not intended to authorize the imposition of fees for general public access to water resources development projects.

ANSWERS TO QUESTIONS RAISED BY SENATOR BURDICK

1.

QUESTION: Please provide the Committee with a list, in constant dollars, (current prices) of the Corps construction budget and operations and maintenance budget for each of the last 10 Fiscal Years. A breakout of the three major Corps accounts (Construction, General, Mississippi River and Tributaries; and Operation and Maintenance) will be adequate for the Committee's needs.

ANSWER: The following tabulation provides the requested information at October 1986 price levels:

Constant Dollars Value of Corps Program

(Dollars in Millions)

	Construction General		Operation and Maintenance		Mississippi River and Tributaries	
Fiscal Year	Actual	Oct 86	Actual	Oct 86	Actual	Oct 86
1978	1538	2684	769	1330	253	438
1979	1344	2195	833	1375	223	370
1980	1660	2524	942	1422	211	321
1981	1594	2227	968	1358	238	334
1982	1430	1870	1025	1344	256	341
1983	1508	1794	1201	1430	403	492
1984	927	1038	1184	1326	302	340
1985	948	1006	1308	1408	322	341
1986	880	922	1260	1345	301	317
1987	1152	1192	1390	1436	311	320
1988	1188	1189	1470	1470	317	317

2.

QUESTION: Please provide a list of all projects which have been initiated in the last five years or which are budgeted in the current fiscal year or in the budget year, constructed, or on which maintenance funds have been expended in the states of Florida, Idaho, Louisiana, Maine, Maryland, Minnesota, Montana, Nevada, New Jersey, New York, North Dakota, Rhode Island, South Dakota, Vermont, Virginia and Wyoming.

ANSWER: The data below shows a total of actual expenditures for FY 82 through FY 86 and, for specifically authorized projects, the amounts requested in the FY 87 and FY 88 budgets. For small projects the total includes FY 87 allocations to date rather than budget requests. Those small projects which were studied, but which did not result in construction are not included in this report. However, no attempt was made to exclude study funds from the total for small projects which were constructed.

FLORIDA

Project Names	($000)
Construction	
Brevard County	26
Broward County	9,365
Canaveral Harbor	6,687
Central & Southern Florida	70,402
Cross Florida Barge Canal	347
Dade County, Bal Harbor	27
Dade County, North of Haulover	9,013
Dade County	14,301
Duval County	10,832
East Point	1,419
Fernandina Harbor, Ft Clinch Pier	18
Four River Basin	6,288
Four River Basin, Moss Bluff Lock and Dam	169
Jim Woodruff Lock and Dam	64
Key Biscayne	897
Manatee Harbor	2,400
Miami Harbor, Bayfront Park	4,629
Okeechobee Waterway	99
Palm Beach County	3,730
Pinellas County	6,747
Port Everglades Harbor	20,358
St Lucie Inlet	2,169
Tampa Harbor, Main Channel	88,971
Valpariso	216
Total	259,474
Operation and Maintenance	
Atlantic Intracoastal Waterway, Jacksonville To Miami	4,187
Apalachicola, Chattahoochee, Flint Rivers	22,168
Apalachicola Bay	2,137
Bakers Haulover Inlet	126
Bayou Texar	48
Blackwater River	578
Canaveral Harbor	26,145
Central and Southern Florida	31,688
Channel, Naples to Big Marco Pass	682
Charlotte Harbor	8,938
Cross Florida Barge Canal	11,639
East Pass Channel	3,945
Eau Gallie Harbor	1,158
Escambia-Conecuh	3,490
Fernandina Harbor	10,266
Fort Myers Beach	422

Fort Pierce Harbor	2,735
Gulf Intracoastal Waterway, Caloosahatchee-Anclote River	5,235
Jacksonville Harbor	25,631
Jim Woodruff Lock and Dam	27,925
Johns Pass, Pinellas County	944
LaGrange Bayou	186
Longboat Pass	1,294
Melbourne Harbor	345
Miami Harbor	353
New Pass, Sarasota	1,719
Okeechobee Waterway	13,438
Oklawaha River	236
Palm Beach Harbor	8,095
Panama City	4,651
Pensacola Harbor	3,813
Ponce De Leon Inlet	12,088
Port Everglades Harbor	575
Port St Joe Harbor	634
St Augustine Harbor	537
St Lucie Inlet	4,796
St Marks River	675
Tampa Harbor	12,903
Total	256,425

IDAHO

Construction

Big Wood River, Blaine County	174
Boise River, Ada County	239
Dworshak Dam and Reservoir	12,853
Lucky Peak Reservoir	71
Placer Creek, Wallace	4,478
Salmon River, Vicinity of Salmon	380
Weiser River, Washington County	107
Total	18,302

Operation and Maintenance

Albeni Falls Dam	16,534
Dworshak Dam and Reservoir	36,718
Lucky Peak Reservoir	6,158
Total	59,410

LOUISIANA

Construction

Atchafalaya Basin	143,492
Atchafalaya Basin Floodway System	4,631
Atchafalaya River, Bayous Chene, Boeuf and Black	792
Bayou Bodcau and Tributaries	1,132
Bayou Cocodrie and Tributaries	985
Bayou Grand Caillou	474
Channel Improvement	192,743
Grand Isle and Vicinity	10,194
Lake Pontchartrain	100,228
Larose to Golden Meadow Hurricane Protection	34,860
Leland Bowman Lock	30,124
Lower Red River, South Bank Levees	343
Mississippi Delta Region	4,500
Mississippi River Levees	56,435
Mississippi River Ship Channel, Gulf to Baton Rouge	17,717
Mississippi River, Baton Rouge to Gulf of Mexico	64,847
Mississippi River Gulf Outlet	15,636
Morgan City and Vicinity	1,223
New Orleans to Venice	17,542
Old River	208,624
Ouachita River Levees	48
Pearl River, Slidell, St Tammany Parish	1,013
Poverty Point, Epps	243
Red River Backwater Area	2,700
Red River Waterway, Emergency Bank Protection Only	139,724
Red River Waterway, Mississippi River to Shreveport	352,838
Red River Levees, Bank Stabilization Below Denison Dam	5,515
Teche-Vermillion Basin	10,950
Tensas Basin, Tensas-Cocodrie Pumping Plant	25,522
Tensas River National Wildlife Refuge	39,717
Total	1,484,793

Operation and Maintenance

Atchafalaya Basin	54,150
Atchafalaya River, Bayous Chene, Boeuf and Black	34,688
Barataria Bay Waterway	8,450
Baton Rouge Harbor, Devils Swamp	660
Bayou Bodcau Reservoir	2,654
Bayou Bonfouca	31
Bayou Cocodrie and Tributaries	391
Bayou Lacombe	27
Bayou Pierre	131
Bayou Segnette Waterway	10
Bayou Teche	2,068
Bayou Teche and Vermillian River	39
Bonne Carre Spillway	2,722
Caddo Lake	892
Calcasieu River and Pass	51,281

Channel Improvements	52,507
Freshwater Bayou	5,921
Houma Navigation Canal	11,342
Lake Providence Harbor	1,471
Lower Red River, South Bank Levees	577
Madison Parish Port	638
Mermentau River	8,290
Mississippi River, Baton Rouge to Gulf of Mexico	257,238
Mississippi River, Gulf Outlet	54,540
Mississippi River Levees	30,906
Mississippi River, Outlets at Venice	13,241
Old River	41,121
Pearl River	139
Petit Anse, Tigre and Carlin Bayou	639
Red River Backwater Area	1,327
Red River Waterway, Mississippi River to Shreveport	3,792
Tangipahoa River	51
Tchefuncte River and Boguefalia	294
Wallace Lake	796
Waterway, Intracoastal Waterway to Bayou Dulac	232
Waterway, Empire to Gulf	14
Total	643,270

MAINE

Construction

Bagaduee River, Castine	130
Belfast City Park, Belfast	138
Corea Harbor, Gouldsboro	622
Ilesboro Island	165
Jonesport Harbor	9,251
Saco River	254
Sand Cove, Gouldsboro	125
Sebasticook River, Hartland	1,568
Total	12,253

Operation and Maintenance

Eastport Harbor	96
Kennebec River	859
Kennebunk River	521
Portland Harbor	2,683
Penobscot River	203
Royal River	325
Saco River	23
Total	4,710

MARYLAND

Construction

Baltimore Harbor	10,431
Baltimore Harbor and Channel (50 foot)	101,347
Black Walnut Point, Talbot County	201
Bloomington	7,369
Herring Creek, Tall Timbers, St. Mary's County	973
Lower Thorofare, Somerset County	621
Ocean City	3,838
Potomac Estuary, Pilot Treatment Plant	7,476
Rock Hall Harbor	532
Smith Island	288
Total	133,076

Operation and Maintenance

Baltimore Harbor	42,334
Baltimore Harbor, Brewerton East Extension	820
Black Walnut Harbor	322
Bloomington Lake	7,519
Cambridge Harbor	24
Chester River	730
Claiborne Harbor	666
Cumberland	135
Duck Point Cove	230
Fishing Bay	40
Fishing Creek	1,309
Herring Bay and Rockhold Creek	318
Honga River, Tar Bay	1,237
Island Creek	14
Knapps Narrow	607
Lower Thorofare, Deal Island	184
Lowes Wharf	279
Muddy Hook and Tyler Coves	342
Nanticoke River & Northwest Fork	733
Neale Sound	159
Northeast River	766
Ocean City	4,536
Parish Creek	51
Pocomoke River	368
Queenstown Harbor	280
Rhodes Point to Tylerton	440
Slaughter Creek	487
St Catherines	116
St Jerome Creek	261
St Patricks Creek	26
Susquehanna River, Havre de Grace	48
Tred Avon River	2,572
Twitch Cove	1,311
Upper Thorofare	368
Wicomico River	4,358
Total	73,991

MINNESOTA

Construction

Bassett Creek	6,321
Bigstone Lake, Whetstone River	8,864
Black Bear and Miller Lakes	337
Halstad	1,737
Lake City	843
Lake Pulaski, Buffalo, Wright County	175
Mankato-North Mankato	55,326
Memorial Park, Hastings	182
Middle River, Argyle	669
Minnesota River, Le Sueur	250
Mississippi River, Pool #2	312
Mississippi River, Warner Road-St Paul	221
Mississippi River, Between Missouri River and Minneapolis	8,172
Red Lake Falls	131
Red River of the North, Oslo	426
Roseau River	608
South Fork, Zumbro River of Rochester	4,400
Two Harbors	183
Wild Rice River, Mahnomen City	123
Wild Rice River, South Branch, Felton Ditch	2,569
Winona	19,640
Zippel Bay, Lake of Woods County	308
Total	111,797

Operation and Maintenance

Bigstone Lake, Whetstone River	2,485
Duluth Superior Harbor	21,233
Grand Marais Harbor	1,407
Knife River Harbor	19
Lac Qui Parle Lakes	2,987
Lake City Small Boat Harbor	27
Lake Traverse	1,636
Minnesota River	1,786
Mississippi River	118,033
Orwell Lake	1,690
Red Lake Dam	511
Reservoirs at Headwaters	11,290
St Croix River	485
Two Harbors	291
Warroad Harbor	265
Winona Small Boat Harbor	53
Total	164,198

MONTANA

Construction

Fort Peck Dam	82
Great Falls	10,967
Libby Additional Units	15,818
Libby Dam	1,090
Yellowstone River	173
Total	28,130

Operation and Maintenance

Fort Peck Lake	24,273
Libby Dam	20,999
Total	45,272

NEVADA

Operation and Maintenance

Martis Creek Lake	625
Pine-Mathews Canyon	693
Total	1,318

NEW JERSEY

Construction

Barnegat Inlet	12,271
Delaware River, Vicinity of Camden	2,650
Delaware River, Pennsville	199
Elizabeth	26,612
Ho-Ho-Kus Brook, Waldwick	103
Liberty State Park	11,020
Manasquan River	1,641
Newark Bay, Hackensack and Passaic Rivers	630
Seabright to Ocean Township	2,707
Total	57,833

Operation and Maintenance

Absecon Inlet	150
Barnegat Inlet	4,376
Cohansey River	1,517
Cold Spring Inlet	1,371

Delaware River Between Philadelphia and Trenton	8,273
Intracoastal Waterways	12,313
Keyport Harbor	603
Manasquan River	438
Maurice River	10
Newark Bay, Hackensack and Passaic Rivers	25,838
Raritan River to Arthur Kill Cutoff	1,360
Raritan River	2,087
Salem River	1,790
Sandy Hook Bay	3,750
Shark River	585
Shrewsbury River, Main Channel	661
Shoal Harbor and Campton Creek	731
Tuckerton Creek	15
Total	65,868

NEW YORK

Construction

Ardsley	12,083
Binghamton	41
Bird Isle	620
Cattaraugus Harbor	4,169
Cayuga Creek, Cheektowaga	1,234
Cazenovia Creek, Buffalo	607
Chappaqua (Saw Mill River)	463
Delaware River, Port Jervis	413
Dry Brook Creek, Poland	190
East Rockway Inlet, Rockaway Inlet, Jamaica Bay	14,287
Ellicott Creek	7,957
Fire Island Inlet, Montauk Point	2,707
Genesee River, Amity	166
Irondequoit Bay	2,766
Keshequa Creek, Nanda	58
Kill Van Kull and Newark Bay Channel	64,254
Lake Erie, Sturgeon Point	162
Lake Ontario, State Parkway, Kendall	250
Latta Brook Road, Horseheads	115
Moriches Inlet	7,444
NY Harbor Collection and Removal of Drift	19,540
Ogdensburg Harbor	1,706
Oneida Creek, Oneida	297
Orchard Beach, Bronx	244
Port Ontario Harbor	1,360
Rodgers Cemetary, Genesee River, Amity	77
Sandburg Creek	178
Saquoit Creek, Whitesboro	377
Seneca River, Seneca Falls	100
Walkill River, Black Dirt	2,669
Wendt Beach Park, Evans	104
Yonkers	1,712
Total	148,350

Operation and Maintenance

Addison	87
Almond Dam	1,771
Arkport	972
Avoca	106
Barcelona Harbor	1,586
Bay Ridge, Red Hook Channel	12,805
Binghamton	130
Black Rock Channel, Tonawanda	8,308
Black Rock Lock, Tonawanda Harbor, Bird Island Pier	1,632
Bronx River	886
Browns Creek	18
Buffalo Harbor	11,544
Buttermilk Channel	2,515
Canisteo	184
Cattaraugus Creek Harbor	26
Kinzua Dam and Allegheny Reservoir	3,418
Corning	187
Drift Removal, New York Harbor	14,860
Dunk Harbor	230
Dunkirk Harbor	292
East River	3,386
East Rockaway Inlet	4,967
East Sidney	1,988
Eastchester Creek	717
Elmira	117
Fire Island to Jones Inlet	3,927
Fire Island Inlet	89
Flushing Bay and Creek	3,955
Glen Cove Creek	27
Great Sodus Bay Harbor	11
Hornell	827
Hudson River	17,291
Jamaica Bay	2,952
Jones Inlet	5,392
Long Island Intracoastal Waterway	3,634
Lisle	132
Little Sodus Bay Harbor	19
Milton Harbor	461
Mount Morris Reservoir	4,751
Narrows-Lake Champlain	1,307
New York Harbor	43,894
New York- New Jersey Channels	19,563
Newtown Creek	115
Oak Orchard Harbor	110
Ogdensburg Harbor	35
Olcott Harbor	83
Oswego Harbor	2,148
Oxford	68
Plattsburgh Harbor	58
Port Chester Harbor	616
Rochester Harbor	7,879
Rondout Harbor	3,758
Shinnecock Inlet, Suffolk County	274

Southern New York Flood Control Projects	958
Westchester Creek	932
Whitney Point	2,346
Wilson Harbor	279
Total	200,618

NORTH DAKOTA

Construction

Bonnes Coulee, Velva	59
Devils Lake	2,363
Enderlin	3,542
Garrison Reservoir	822
Lake Darling, Souris River	25,387
Minot	39
Missouri River, Garrison to Lake Oahe	218
Red River, Argusville	598
Sheyenne River, Valley City	98
Souris River, Velva	113
Total	33,239

Operation and Maintenance

Baldhill Dam	3,567
Bowman-Haley Lake	1,301
Garrison Dam, Lake Sakakawea	53,357
Homme Lake	644
Pipestem Lake	2,245
Total	61,114

RHODE ISLAND

Construction

City Park Beach, Warwick	120
Cliffwalk, Newport	109
Conimicut Beach, Warwick	146
Pawtuxet River, Warwick	3,139
Total	3,614

Operation and Maintenance

Block Island Harbor of Refuge	62
Great Salt Pond	221
Pawtuxet Cove	2
Point Judith Pond and Harbor of Refuge	2,342
Sakonnet Harbor	43
Total	2,670

SOUTH DAKOTA

Construction

Big Sioux River, Harrisburg	16
Fort Randall Reservoir	115
Gavins Point Dam, Lewis and Clark Lake	371
Lake Frances Case	885
Lake Oahe	17
Lake Sharpe	335
Marne Creek, Yankton	164
Vermillion River, Vermillion	172
Total	2,075

Operation and Maintenance

Big Bend Dam, Lake Sharpe	24,574
Coldbrook Dam	1,112
Cottonwood Springs Lake	768
Fort Randall Dam, Lake Frances Case	39,725
Gavins Point Dam	120
Oahe Dam, Lake Oahe	52,089
Total	118,388

VERMONT

Construction

Ball Mountain Lake	241
Millbrook, Brownville	79
Village of Saxtons	141
Total	461

Operation and Maintenance

Ball Mountain Lake	2,749
North Hartland Lake	1,973
North Springfield Lake	3,522
Townshend Lake	2,717
Union Village Dam	1,895
Total	12,856

VIRGINIA

Construction

Colonial Beach	365
Four Mile Run	2,732
Gathright Dam	721
John W Flannagan Dam	130
Norfolk Harbor	22,437
Philpott Lake	522

Richmond Local Protection	22,437
Rudee Inlet	289
Saxis Island	252
Scottsville, James River	927
Stuart	408
Virginia Beach Streams, Canal #2	2,044
Virginia Beach	1,471
Total	54,735

Operation and Maintenance

Atlantic Intracoastal Waterway	14,569
Baltimore Harbor	3,838
Bonum Creek	116
Broad Creek	409
Cape Charles City Harbor	1,514
Channel to Newport News	1,858
Chincoteague Bay	190
Chincoteague Harbor of Refuge	120
Chincoteague Inlet	5,519
Cranes Creek	371
Gathright Dam, Lake Moomaw	5,878
Greenvale Creek, Lancaster Co	29
Hampton Roads - Drift Removal	1,199
Hoskins Creek	79
James River	11,840
John H Kerr Dam and Reservoir	10,563
John W Flannagan Dam	4,206
Little Machipongo	147
Little Wicomico River	835
Lynn Haven	1,682
Monroe Bay	98
Norfolk Harbor	10,235
Norfolk Harbor, Craney Island Disposal	27,377
North Fork of Pound Lake	2,003
Nottoway River	9
Oyster Channel	324
Parker Creek	50
Philpott Lake	9,972
Potomac River at Mount Vernon	240
Quinby Creek	303
Rappahannock River	8
Tangier Channel	1,378
Thimble Shore Channel	6,201
Waterway, Coast of Virginia	6,860
York River	26
Total	130,019

WYOMING

Construction

Shoshone River, Byron	138

3

QUESTION: How much will be spent in the FY 87 and FY 88 budgets for what the Corps would describe as environmental protection purposes? Please break this down into such items as wildlife mitigation.

ANSWER: The information follows:

Item	FY 1987 ($000)	FY 1988 ($000)
Fish & Wildlife Mitigation (Construction, General)	17,452	22,918
Fish & Wildlife Enhancement (Construction, General)	5,235	9,633
Fish & Wildlife Mitigation (Operation & Maintenance)	13,247	14,106
Total	35,934	46,657

Other Corps activities such as General Regulatory Functions, Aquatic Plant Control, and Natural Resource Management also use funds that are related to the environment.

4.

QUESTION: P.L. 99-662 authorized the creation of an environmental mitigation trust fund at a maximum level of $35 million. It appears that this fund was not budgeted. Did the Corps request funding of this trust fund from OMB? If so, what was OMB's rationale for unbudgeting the funds? If not, why was this fund not given budgetary consideration? Would the Administration object to either initiating this fund with additional appropriations or a transfer of funds from other purposes? How much is being requested for the acquisition of lands for the purpose of mitigation in the Corps FY88 budget? How much of such acquisition is anticipated in FY88?

ANSWER: No, funding of the trust fund was not requested. We did not believe it had the necessary priority to successfully compete for the limited resources available in FY88. Yes, we would object to initiating this fund as the President's program represents a balance between the Civil Works Program and other Federal programs, and the Administration's priorities for the Civil Works Program. 3.5 million dollars is budgeted for FY88 to acquire 991 acres of mitigation lands at six projects. We expect to acquire all of these lands in FY88.

5.

QUESTION: P.L. 99-662 established annual ceilings on the construction program of the Corps of Engineers. Does the Corps FY 88 Budget for construction activities come within the established ceilings, and is it anticipated that the ceilings set in P.L. 99-662 will be adequate for the future?

ANSWER: The amount requested for construction in both the Construction General and Flood Control, Mississippi River and Tributaries accounts is about $100 million under the $1.5 billion ceiling established for FY 88. We would expect the obligations in FY 88 to be against the obligation ceiling at slightly over $1.4 billion based on carryover fund obligations. In all, we believe the obligation ceilings, which increase $100 million a year reaching $1.8 billion in FY 1991 are adequate for anticipated construction programs based on the new cost sharing formulas which require significant non-Federal contributions, particularly on port projects.

6.

QUESTION: What amount is available, within these ceilings for Fiscal Years 1989, 1990, 1991, 1992, and 1993, for new construction starts?

ANSWER: Based on the Fiscal Year 1988 budget and the schedule of work therein, we could accommodate additional obligations of about $75 million in Fiscal Year 1989, $275 million in Fiscal Year 1990, $360 million in Fiscal Year 1991, and $550 million in Fiscal Year 1992 and remain in compliance with the ceilings. At this time, we cannot provide any projections of new construction starts or the amount available for them for Fiscal Year 1993. The total Federal cost and number of the new starts that would occasion these annual amounts could vary, depending upon the types of projects available and the construction period thereof. It is important to note, however, that no commitment to the amount of actual new starts that will be included can be made at this time. Much will depend on overall budget constraints and factors influencing our economy.

7.

QUESTION: What new starts are anticipated to be initiated in the next five years? (FY 89-93)

ANSWER: It is not possible this far in advance to provide a list of projects that could be started in the five years following the budget year. There are a number of reasons for this. To be selected for a new construction start funding request a project must satisfy several requirements. First, in addition to being authorized, it must be well justified in that it serves priority water resources needs and passes economic investment tests. Second, it must also have a sponsor that is both financially capable and willing to sign the necessary Local Cooperation Agreement. Finally, the project must also be ready to undergo initiation of physical construction during the budget year, and thus must satisfy a number of environmental and preconstruction engineering and design requirements, including the availability of plans and specifications and a final EIS. Because budgetary resources are inadequate to accomodate all selectable projects, it is necessary to follow functional priorities and other investment discriminators to select that set of new projects that best respond to our objectives and priorities.

8.

QUESTION: If the ceilings established were to be increased, what additional new work (projects) could be started with an increase in FY 88 and subsequent years of $50 million; $100 million?

ANSWER: An annual incremental increase of $50 million would be sufficient to initiate construction for some 20-25 projects and would, on an average, require corresponding increases in the outyears sufficient to accommodate a follow-on increase in the Federal investment of some $580-610 million over the next four years.

QUESTION: If the ceilings are decreased what projects would be delayed by a (A) $50 million reduction; (B) $100 million reduction; (C) $150 million reduction; (D) $200 million reduction?

ANSWER: If the ceiling for 1988 was decreased by $50 million initiation of the FY 1988 new construction would be deferred. Any decrease beyond the $50 million level would result in a general slippage being applied to all remaining projects currently underway.

QUESTION: Provide a list of the construction contracts of at least $5 million which are in the Fiscal Year 1988 budget.

ANSWER: We will provide it for the record.

The information follows:

CONSTRUCTION CONTRACTS OVER $5 MILLION INCLUDED IN THE FY 88 BUDGET

PROJECT NAME	DESCRIPTION	EST/ACT AWARD DATE MO/YR	CONTRACT AMOUNT ($000)	SCH EARN THRU FY 87 ($000)	SCH EARN FY 88 ($000)	BAL/COMPL AFT FY 88 ($000)
ALAMOGORDO NORTH DIVERSION CHANNEL, NM	CHANNELS AND LEVEES	MAY 89	19,245	0	1,712	17,533
ATCHAFALAYA BASIN PROJECT, LA	LEVEE & FLOODWALL (STA 1325-1625)	JAN 87	10,300	2,400	4,300	3,600
	LEVEE & FLOODWALL (STA 2200-2574)	JUN 87	8,090	350	3,000	4,740
	OUTLET CONTROL STRUCTURES	MAY 87	13,279	5,000	5,000	3,279
B. EVERETT JORDAN DAM AND LAKE, NC	POPLAR POINT RECREATION FACILITIES	SEP 85	10,269	6,522	3,267	480
BALTIMORE HARBOR AND CHANNELS, MD & VA	CAPE HENRY	MAY 88	12,200	0	3,900	8,300
	CRAIGHILL	FEB 87	66,500	33,600	32,900	0
	RAPPAHANNOCK	FEB 87	20,340	8,700	11,640	0
	YORK SPIT	MAR 87	25,300	18,500	6,800	0
BARNEGAT INLET, NJ	JETTY CONSTRUCTION	MAY 87	31,000	5,887	8,343	16,770
BLUE RIVER CHANNEL, MO	STAGE 2, CONTAMINATED SEDIMENTS REMOVAL	AUG 88	23,025	0	50	22,975
BOGGY CREEK, AUSTIN, TX	CHANNELS PT II/RECREATION FACILITIES	MAR 88	11,160	0	4,624	6,536
BONNEVILLE NAVIGATION LOCK, WA & OR	LOCK EXCAVATION	JUN 87	30,229	100	27,432	10,697
CENTRAL AND SOUTHERN FLORIDA, FL	HERBERT HOOVER ELEMENT, REACH 3 AND 6 (PART)	OCT 87	6,195	0	1,000	5,195
	HERBERT HOOVER ELEMENT, REACH 5- MOORE HAVEN	JUL 88	5,205	0	105	5,100
	HERBERT HOOVER ELEMENT, REACH 6-NUBBIN SLOUGH	FEB 85	10,000	6,230	2,685	1,085
	SHINGLE CREEK CHANNEL IMPROVEMENTS	MAR 88	5,495	0	2,100	3,395
	UPPER ST. JOHNS RIVER LEVEES AND FLOOD CONTROL STRUCTURES	MAY 88	9,087	0	800	8,287
CHARLESTON HARBOR, SC	CHANNEL DEEPENING	MAR 88	81,888	0	10,930	70,958
CHIEF JOSEPH ADDITIONAL UNITS, WA	GENERATOR STATOR REWIND	JUN 83	11,500	8,520	595	2,385
	TURBINE DEFICIENCY CORRECTIONS	APR 88	26,200	0	350	25,850
COOPER LAKE AND CHANNELS, TX	EMBANKMENT, SPILLWAY AND OUTLET WORKS	OCT 87	60,744	0	10,455	50,289
CORPUS CHRISTI SHIP CHANNEL, TX	CHEMICAL TB, LEVEE CONSTUCTION, DISPOSAL AREA	MAR 87	8,518	3,175	4,518	825
DADE COUNTY, NORTH OF HAULOVER BEACH PARK, FL	INITIAL BEACH NOURISHMENT	SEP 87	14,460	100	14,360	0
DRY CREEK (WARM SPRINGS) LAKE AND CHANNEL, CA	ROCKFILE RD UPGRADE UNIT #5	FEB 87	7,550	4,230	3,320	0
DUVAL COUNTY, FL	PERIODIC BEACH NOURISHMENT	APR 87	13,318	3,550	7,718	2,050
ELK CREEK LAKE	MAIN DAM	JAN 86	69,061	24,400	26,400	18,261
ELLICOTT CREEK, NY	MULTI COMP B3	JUL 87	9,325	1,950	4,100	3,275
EVANSVILLE, IN	LEVEES, FLOODWALLS, ETC.	AUG 87	9,428	1,475	3,848	4,105
F. E. WALTER DAM, PA	DAM	JUN 88	17,495	0	4,600	12,895
	OUTLET WORKS	JUN 88	34,270	0	5,000	29,270
	PIPELINE	JAN 88	5,050	0	870	4,180
	ROADS	APR 89	12,690	0	3,500	9,190
	SPILLWAY	JUN 88	20,730	0	4,000	16,730
FALLS LAKE, NC	HOLLY POINT RECREATION AREA	APR 88	7,638	0	580	7,058
FOUNTAIN CREEK, PUEBLO, CO	CHANNEL AND LEVEES	AUG 87	5,710	133	2,265	3,312
FOURCHE BAYOU BASIN, LITTLE ROCK, AR	CHANNELS AND CANALS (3RD CONSTRUCTION)	AUG 88	5,043	0	40	5,003
FREEPORT HARBOR, TX	BREAK WATERS-3700 OF NORTH JETTY	MAR 87	22,300	4,900	8,170	9,230
GALLIPOLIS LOCKS AND DAM, OH	LOCKS	SEP 88	237,500	0	4,000	233,500
HALSTEAD, KS	CHANNELS AND LEVEES	AUG 88	5,600	0	310	5,290
JOE POOL LAKE, TX	RECREATION FACILITIES: STATE PARK (PART II)	AUG 87	12,955	600	1,000	11,355
	RECREATION FACILITIES: LLOYD PARK	OCT 87	8,977	0	4,777	4,200
JONESPORT HARBOR, ME	BREAKWATER	APR 88	8,080	2,210	4,520	1,350
KAHOMA STREAM, HI	CHANNELS	SEPT 86	10,060	5,750	2,460	1,850
KILL VAN KULL AND NEWARK BAY, NY & NJ	CONTRACT 1	APR 87	25,900	14,900	11,000	0
	CONTRACT 2	JAN 88	31,200	0	31,200	0
	CONTRACT 3	MAR 88	27,840	0	15,700	12,140
	CONTRACT 4	JUL 88	33,270	0	8,320	24,950
LAKE WICHITA, HOLLIDAY CREEK AT WICHITA FALLS, TX	CHANNELS-PHASE II	AUG 88	10,876	0	50	10,826
LEVISA AND TUG FORK, WV, VA & KY	FLOODWALL AND HIGHWAY RELOCATION	SEP 86	18,347	7,876	8,877	1,594
	LANDS AND DAMAGES	APR 86	7,600	230	1,000	6,370

CONSTRUCTION CONTRACTS OVER $5 MILLION INCLUDED IN THE FY 88 BUDGET

PROJECT NAME	DESCRIPTION	EST/ACT AWARD DATE MO/YR	CONTRACT AMOUNT ($000)	SCH EARN THRU FY 87 ($000)	SCH EARN FY 88 ($000)	BAL/COMPL AFT FY 88 ($000)
	LEVEES AND FLOODWALLS	JAN 88	36,300	0	3,200	33,100
	LEVEES AND FLOODWALLS	JUL 86	25,100	4,550	8,000	12,550
LIBERTY STATE PARK, NJ	LEVEE AND SEAWALL CONSTRUCTION	FEB 87	20,810	8,083	9,130	3,597
LITTLE BLUE RIVER LAKES, MO	BLUE SPRINGS EMBANKMENT, OUTLET WORKS, SPILLWAY	JUN 82	10,900	9,225	1,414	261
LITTLE BELL LAKE, UT	MAIN DAM	JUL 88	21,430	0	3,550	17,880
	OUTLET WORKS	JUL 88	8,706	0	2,500	6,206
MANATEE HARBOR, FL	CHANNEL WIDENING AND TURNING BASIN	JUN 88	10,915	0	2,400	8,515
MANKATO, MN	MULTI COMP J2	MAY 88	11,378	2,698	5,860	2,820
MILL CREEK, OH	CHANNEL AND LEVEE SECTION 5	AUG 88	5,235	0	565	4,670
	RAILROAD RELOCATION AND CHANNEL SECTION 6A	APR 86	21,506	10,782	8,900	1,824
MISSISSIPPI DELTA REGION PROJECT, LA	CAERNARVON FRESHWATER DIVERSION STRUCTURE	NOV 87	18,421	0	4,431	13,990
MISSISSIPPI RVR LVS AR, IL, KY, LA, MS, MO & TN	JACKSON-THALIA, LA	JUN 87	7,946	700	4,482	2,764
	LEVEE & FLOODWALL AT CAIRO-MOUND CITY, ILL	DEC 86	5,200	2,924	2,276	0
	STATELINE WILSON PT, LA	MAY 88	8,045	0	1,000	7,045
MOBILE HARBOR, AL	MAIN CHANNEL DEEPENING	JUN 87	67,200	651	27,741	38,808
MONTGOMERY LOCKS AND DAM, PA	LOCK & DAM	JUL 85	26,670	17,977	7,500	1,193
MORICHES INLET, NY	JETTY CONSTRUCTION	MAR 87	6,504	2,561	3,943	0
MOUNT SAINT HELEN SEDIMENT CONTROL, WA	SEDIMENT RETENTION STRUCTURE	DEC 86	59,315	17,500	23,088	18,727
MOUTH OF COLORADO RIVER, TX	DIVERSION CHANNELS AND LEVEES	MAY 88	8,950	0	1,000	7,950
NORFOLK HARBOR AND CHANNELS, VA	NEWPORT NEWS	OCT 87	7,960	0	7,960	0
	THIMBLE SHOAL	FEB 87	29,451	0	11,700	17,751
OAKLAND INNER HARBOR, CA	CHANNEL IMPROVEMENTS	MAY 88	22,720	0	3,700	19,020
OAKLAND OUTER HARBOR, CA	CHANNEL IMPROVEMENTS	DEC 87	18,400	0	8,250	10,150
OATES CREEK, GA	CHANNEL IMPROVEMENTS	SEP 88	6,179	0	70	6,109
PINELLAS COUNTY, FL	BEACH NOURISHMENT, SAND KEY	FEB 88	12,650	5,525	5,600	1,525
PONCE HARBOR, PR	CHANNEL AND TURNING BASIN DEEPENING	JUL 87	8,692	936	7,756	0
PORTSMOUTH HARBOR, NH & ME	CHANNEL IMPROVEMENTS	AUG 87	17,630	520	9,460	7,650
PORTUGUES AND BUCANA RIVERS, PR	CERRILLOS DAM CONSTRUCTION	SEP 84	88,947	45,839	16,950	26,158
	PORTUGUES DEBRIS BASIN EXCAVATION,PHASE I	FEB 87	5,415	3,000	2,415	0
	PORTUGUES DEBRIS BASIN EXCAVATION,PHASE II	JUN 87	5,400	2,700	1,900	800
	PORTUGUES DEBRIS BASIN EXCAVATION,PHASE III	DEC 87	5,551	0	2,000	3,551
PUERCO RIVER AND TRIBS, GALLUP, NM	CHANNELS AND LEVEES	JUN 88	5,900	0	445	5,455
RENO BEACH (HOWARD FARM), OH	LEVEES	APR 88	5,010	0	1,220	3,790
REVERE BEACH, MA	BEACH REPLENISHMENT	JUN 87	6,230	1,190	3,550	1,490
RICHARD B. RUSSELL DAM AND LAKE, GA & SC	PUMPED STORAGE, GENERATORS	OCT 86	21,878	2,970	3,500	15,408
	PUMPED STORAGE, POWERHOUSE CONSTRUCTION	APR 88	14,063	0	1,000	13,063
	PUMPED STORAGE, TURBINES	MAY 84	20,284	2,820	4,018	13,446
	REMAINING RECREATION, GA	OCT 87	5,455	0	3,000	2,455
	REMAINING RECREATION, SC	DEC 87	17,936	0	4,000	13,936
RICHMOND, VA	NORTHWALL	FEB 88	14,700	0	3,800	10,900
	SOUTH LEVEE	MAY 88	15,100	0	2,100	13,000
S.D. ZUMBRO ROCHESTER, MN	CHANNELS	AUG 88	6,474	0	318	6,156
SACRAMENTO RIVER BANK PROTECTION, CA	CONTRACT 041	MAR 88	9,000	0	6,075	2,925
SACRAMENTO RIVER DEEPWATER SHIP CHANNEL, CA	CHANNELS-15-0	OCT 87	14,100	0	7,000	7,100
	CHANNELS-27-15	AUG 88	6,100	0	200	5,900
	CHANNELS-43-35	JUN 87	8,500	1,600	6,900	0
SAN ANTONIO CHANNEL IMPROVEMENT, TX	CHANNELS: TUNNEL UNITS - 7-3-1,8-4,8-5	MAY 87	69,740	5,700	22,735	41,305
SAN LUIS REY RIVER, CA	PILGRIM CREEK LEVEE	APR 88	18,630	0	9,300	9,330
SAVANNAH HARBOR, GA	CHANNEL WIDENING	APR 87	8,662	3,568	4,000	1,094
SMITHLAND LOCKS AND DAM, IL & IN	DAM	AUG 74	112,438	112,414	24	0
SNETTISHAM, AK	MAIN CONTRACT	AUG 86	24,238	6,637	8,551	9,050

CONSTRUCTION CONTRACTS OVER $5 MILLION INCLUDED IN THE FY 88 BUDGET

PROJECT NAME	DESCRIPTION	EST/ACT AWARD DATE MO/YR	CONTRACT AMOUNT ($000)	SCH EARN THRU FY 87 ($000)	SCH EARN FY 88 ($000)	BAL/COMPL AFT FY 88 ($000)
SOUTHWEST JEFFERSON COUNTY, KY	LEVEE SECTION 5 AND POND CREEK PUMP PLANT	SEP 85	15,915	8,020	5,035	2,860
SOWASHEE CREEK, MERIDIAN, MS	CHANNEL IMPROVEMENTS AND RECREATION FACILITIES	JAN 88	9,148	0	2,830	6,318
STONEWALL JACKSON LAKE, WV	ROAD RELOCATION	FEB 86	5,020	4,146	874	0
	ROANOKE BAY CAMPING	OCT 87	6,660	0	2,100	4,560
	ROANOKE BAY RECREATION PARK	JUN 87	7,770	1,500	3,500	2,770
SWEETWATER RIVER, CA	CHANNELS CITY BOULEVARD	MAY 85	7,930	7,358	572	0
	CHANNELS TO END	FEB 86	8,573	6,083	2,490	0
TAMAQUA, PA	DIVERSION STRUCTURES	AUG 87	6,010	573	3,780	1,657
TAYLOR'S BAYOU, TX	CHANNELS: HILLEBRANDT BAYOU	MAR 88	7,250	0	1,450	5,800
THREEMILE CREEK, MOBILE, AL	CHANNEL IMPROVEMENTS II	JAN 88	5,210	0	3,470	1,740
TOWN BLUFF HYDROPOWER, TX	POWERHOUSE	JAN 87	9,506	4,150	4,591	765
TOWN BROOK, QUINCY AND BRAINTREE, MA	FLOODWAY AND CONTROL DIVERSION STRUCTURES	FEB 88	22,290	0	7,140	15,150
WALNUT CREEK, CA	CHANNELS-SAN RAMON	SEP 88	7,350	0	310	7,040
WILLIAM BACON OLIVER LOCK AND DAM, AL	COFFERDAM AND RIVER DIVERSION	FEB 87	19,785	16,015	3,770	0
	LOCK AND DAM CONSTRUCTION	NOV 87	86,505	0	16,220	70,285
YATESVILLE LAKE, KY	ROADS	JAN 88	15,140	20	3,000	12,120
	DAM	APR 86	24,980	10,000	8,000	6,980
YAZOO BASIN PROJECT, MS	FORT PEMBERTON FLOOD CONTROL DIVERSION	DEC 86	13,429	2,150	6,000	5,279
	LEVEE & FLOODWALL	MAR 88	9,807	0	892	8,915
	LEVEE & FLOODWALL	DEC 87	9,836	0	3,500	6,336

11.

QUESTION: What is the total amount of the FY 88 budget devoted to salaries and expenses? What has this amount been in each of the last five fiscal years, and what is the estimate for FY 87.

ANSWER: Funds requested in the FY 88 Budget for personnel salaries and benefits amounts to $1,070. The budget includes $57 million for increased costs in the employer share of retirement contributions due to enactment of the new Federal Employees' Retirement System. Personnel related costs for the period FY 82 to FY 88 are as follows (dollars in Millions):

Fiscal Year	Total
1982 actual	832
1983 actual	820
1984 actual	885
1985 actual	887
1986 actual	928
1987 estimate	996
1988 budget	1,070

12.

QUESTION: Provide an annual listing of FTE and FTP personnel for the Civil Works program for each of the last five years, FY 87 and FY 88, and for comparison FY 65 and FY 75.

ANSWER: A listing of FTE and FTP personnel for the Civil Works program for FY 65, FY 75, each of the last five years, FY 87, and FY 88, follows.

Fiscal Year	Manpower 1/	FTPs
65	31870	28600
75	31850	28740
82	32173	28340
83	30564	28111
84	28935	26125
85	28645	26928
86	28395	27666
87	28195	27541
88	28195	27541

1/Manpower authorizations for FY 65 and 75 were of end-strength as of 31 July. For FY 82 and later authorizations were of manyear usage through 30 September.

13.

QUESTION: Would you break these personnel numbers down into the following categories for FY 87 and FY 88:

- Engineering Staff
- Support Staff/Maintenance
- Construction Management
- General Management
- Other

ANSWER: Breakdowns of the Corps' FY 87 and 88 civil program civilian manpower allocations follow:

Field of Work	Fiscal Year			
	87		88	
	Manyears	FTP	Manyears	FTP
Engineering Staff	5200	5079	5200	5079
Support Staff/Maintenance 1/	3680	3639	3680	3636
Construction Management	2000	1954	2000	1954
General Management 2/	1720	1636	1720	1639
Other	15595	15233	15595	15233
Total	28195	27541	28195	27541

1/ Total requirement for Administration less total requirement for Executive Direction and Management.

2/ Total requirement for Executive Direction and Management.

14.

QUESTION: Would you provide the personnel totals for each Corps District and Division office for each of the last five years, FY 87, and FY 88.

ANSWER: Personnel totals for each Corps District and Division office for each of the last five years, FY 87, and FY 88 follow:

Division/District	Manyear Allocation						
	Fiscal Year						
	82	83	84	85	86	87	88
Huntsville/ 1/	29	24	24	31	41	44	44
Lower Mississippi Valley/ 1/	222	216	236	267	268	257	257
Memphis	995	934	790	777	760	760	760
New Orleans	1594	1515	1461	1413	1373	1373	1373
St Louis	1015	1013	929	903	857	844	844
Vicksburg	1805	1877	1723	1750	1707	1700	1700
Total	5631	5555	5139	5110	4965	4934	4934
Middle East/ 1/	0	0	0	26	21	0	0

1/ Division office.

Division/District	Manyear Allocation						
	Fiscal Year						
	82	83	84	85	86	87	88
Missouri River/ 1/	168	131	124	127	122	115	115
Kansas City	921	830	812	805	778	777	777
Omaha	835	872	782	814	795	794	794
Total	1924	1833	1718	1746	1695	1686	1686
New England/ 1/	637	590	552	560	554	546	546
North Atlantic/ 1/	105	106	102	103	101	98	98
Baltimore	367	365	342	364	364	366	366
New York	439	418	392	390	383	380	380
Norfolk	305	281	251	253	255	254	254
Philadelphia	545	463	432	432	432	431	431
Total	1761	1633	1519	1542	1535	1529	1529

1/ Division office.

Division/District	Manyear Allocation						
	Fiscal Year						
	82	83	84	85	86	87	88
North Central/ 1/	254	247	235	222	220	184	184
Buffalo	503	484	375	354	357	354	354
Chicago	155	123	122	127	131	128	128
Detroit	913	804	746	696	691	701	701
Rock Island	870	853	811	824	823	832	832
St. Paul	752	746	703	721	729	732	732
Total	3447	3257	2992	2944	2944	2931	2931
North Pacific/ 1/	369	319	290	277	271	272	272
Alaska	222	225	185	182	178	178	178
Portland	1383	1346	1245	1293	1304	1295	1295
Seattle	696	651	578	576	575	571	571
Walla Walla	834	830	763	716	707	704	704
Total	3504	3371	3061	3044	3035	3020	3020

1/ Division office.

Division/District	Manyear Allocation						
	Fiscal Year						
	82	83	84	85	86	87	88
Ohio River/ 1/	241	241	255	314	305	297	297
Huntington	1036	1036	1020	1005	996	993	993
Louisville	966	933	873	828	779	781	781
Nashville	1043	994	911	880	860	862	862
Pittsburgh	894	878	866	845	826	825	825
Total	4180	4082	3925	3872	3766	3758	3758
Pacific Ocean/ 1/	133	120	115	108	90	90	90
South Atlantic/ 1/	147	145	170	172	174	175	175
Charleston	155	158	142	143	135	131	131
Jacksonville	765	706	657	641	653	672	672
Mobile	1324	1364	1251	1264	1277	1245	1245
Savannah	590	585	502	519	497	461	461
Wilmington	453	457	421	424	423	420	420
Total	3434	3415	3143	3163	3159	3130	3130

1/ Division office.

Division/District	Manyear Allocation						
	Fiscal Year						
	82	83	84	85	86	87	88
South Pacific/ 1/	127	122	121	126	126	149	149
Los Angeles	507	513	536	568	571	564	564
Sacramento	525	583	619	647	672	650	650
San Francisco	305	202	190	191	193	191	191
Total	1464	1420	1466	1532	1562	1554	1554
Southwestern/ 1/	190	198	186	171	171	170	170
Albuquerque	232	227	208	209	202	197	197
Fort Worth	763	805	748	738	730	720	720
Galveston	381	375	388	394	401	402	402
Little Rock	931	880	822	808	792	790	790
Tulsa	1130	1100	1020	1005	990	981	981
Total	3627	3585	3372	3325	3286	3260	3260

1/ Division office.

17.

QUESTION: A number of projects which were authorized in P.L. 99-662 included added environmental studies as part of the authorization. Please provide the status of each of these studies, indicating which such projects could not be initiated with approrpiations until they are completed.

ANSWER: I will provide a list of those projects which includes the information you have requested.

(The information follows:)

PROJECTS AUTHORIZED BY PL 99-662 INCLUDING ADDED ENVIRONMENTAL STUDIES

Project Name	Status of Study	Must complete study prior to project initiation
New Haven Harbor, CT	Underway.	Yes
Portsmouth Harbor & Piscataqua River, NH	Underway. 3/	Yes
Big River Reservoir, RI	Not started. 3/	Yes
Manatee Harbor, FL	Not started. 4/	Yes
Tampa Harbor, East Bay Channel, FL	Not started. 1/	No
Crown Bay Channel- St. Thomas Harbor, VI	Not started. 1/	No
Oates Creek, GA	Not started. 4/	No
Monroe County, FL	Not started.	No
Jacksonville Harbor (Mill Cove), FL	Not started. 5/	Yes
Metropolitan Atlanta Area, GA	Underway. 4/	Yes
Duluth-Superior Harbor, MN & WI	Not started. 2/	Yes
Rock River, IL	Not started. 2/	Yes
Muscatine Island, Ia	Not started. 2/	Yes
Olcott Harbor, NY	Not started, 2/	Yes
Helena Harbor, AR	Not Started.	No
White River Navigation, AR	Not Started. 1/	No
Memphis Harbor, TN	Not Started.	No
Nonconnah Creek, TN & MS	Underway. 3/	No
Horn Creek Lake, TN & MS	Underway. 3/	No
Brazos Harbor, TX	Underway. 3/	No
Halstead, KS	Underway.	Yes
Downstream measures at Harry S Truman Dam and Reservoir, MO	Not started.	No
Missouri River Fish and Wildlife Mitigation, IA, NE, KS, & MO	Not started.	No
Yakima-Union Gap, WA	Not started. 1/	Yes
Little Wood River, Gooding & Shoshone, ID	Not started. 1/ 3/	No
Chehalis River, South Aberdeen & Cosmopolis, WA	Not started. 1/	Yes
Oakland Outer Harbor, CA	Underway. 3/	Yes
Oakland Inner Harbor, CA	Underway. 3/ 4/	Yes
Redbank and Fancher Creeks,CA	Underway. 3/	No

NOTES:

1/ Funding will be considered after Fiscal Year 1988.
2/ Study can be completed with available data.
3/ Study to be done as part of Preconstruction Engineering and Design.
4/ New construction start request for Fiscal Year 1988.
5/ Funds to initiate construction were appropriated in Fiscal Year 1987, but work has not started.

18.

QUESTION: Section 302---Describe the process which is being employed to select the Inland Waterway Users Board, and when you expect the board to be appointed.

ANSWER: We published a notice in the Federal Register soliciting candidates for membership in the Inland Waterways Users Board on February 13, 1987. Within the criteria specified in Section 203 of PL 99-662, we will attempt to appoint members which possess the best background and experience to accomplish the duties and responsibilities of the board. We expect the board to be appointed in time for a first meeting to be held this May or June.

19.

QUESTION: Under Section 603 of P. L. 99-662, sites along the Missouri River are eligible for authorization. What such sites are known to be eligible, and what sites are being studied for eligibility?

ANSWER: There are no sites that are known to be eligible and no studies pursuant to 603 are underway.

20.

QUESTION: What is the proposed Administration role for the Corps in FY 87 and FY 88 in addressing the serious problem of rising water levels on the Great Lakes. In your response, please include what is programmed for the "Advance Measures" program and how benefits and costs are calculated for such measures and programmed funding by state for each of the Great Lakes states. In your response, also include the budget amount for the Great Lakes Water Levels Study (PL 99-662) and when this study is expected to be completed.

ANSWER: During FY 87 and 88, the Corps of Engineers expects to continue the following activities around the Great Lakes: monitor conditions and prepare lake level forecasts; provide supplemental assistance to state and local interests through authorized Advance Measures projects; administer the PL 84-99 funded "Self-Help" program; provide technical advice as needed; provide emergency flood fight and disaster assistance as needed; provide necessary technical support and analyses for the IJC Great Lakes Fluctuating Levels Study in response to its Reference dated August 1, 1986; and, coordinate activities with affected Federal, state and local entities.

Under the Corps PL 84-99 emergency authority, funds are not generally programmed for specific types of emergency assistance, such as Advance Measures. Therefore, no funding is programmed by state. Funds are provided from the PL 84-99 Emergency Fund as needed to meet emergency requirements in any area where such assistance is required.

The benefits for proposed Advance Measures projects are focused primarily on the flood damages prevented to residential, commercial, industrial, and public structures and their contents in urban areas. The process is based on standard flood damage assessment procedures and benefits are based on worst case damage conditions for the current and projected levels during the immediate threat period. Costs used in the analysis are the first costs of the project, which include engineering and design, construction, and supervision and administration.

Funds for the Great Lakes Water Levels Study (Section 706 of PL 99-662) are not included in the fiscal year 1988 budget. Therefore, no completion date is scheduled. However, we have included $1.5 million in the Fiscal Year 1988 budget, under the International Water Studies account, to support the International Joint Commission Reference on high water levels.

21.

QUESTION: Section 707 of P.L. 99-662 authorized a study of capital investment needs for water resources to be completed in two years. When will this study be completed and how much is projected for this study in the current budget for FY 87, 88, or 89?

ANSWER: We do not have a specific time table for starting and completing this study. I have asked the Corps of Engineers to develop a priority listing of this and the seven other national studies authorized in Title VII. Following my evaluation of that recommendation, we will determine when and how to proceed on this study.

22.

QUESTION: Section 708 of P.L. 99-662 authorized a study of New York Harbor and Adjacent Channels and directed its completion by December 31, 1987. Presumably, then, this study will require FY 87 and FY 88 funds. Are these funds programmed, and if not, why not?

ANSWER: The Corps informs me that the New York Harbor and Adjacent Channels Study to which Section 708 applied is scheduled for completion in FY 87. An interim report on Claremont Terminal channel was completed by the North Atlantic Division in December 1986.

23.

QUESTION: How were the new starts in this budget selected? Please outline the criteria on which they were selected, and list them in order of priority on this basis. That is, if you only had enough funds to program X-1 new starts, which one would drop out and why. Follow this process through all the new starts.

ANSWER: A four step process was used in screening the potential candidates for new construction starts: eligibility, preliminary selection, prioritization, and final selection. A copy of the criteria for the first three steps is attached. All of the new construction starts recommended in the FY 1988 budget request are in priority group 1 and have a benefit-cost ratio greater than unity, based on a 10 percent rate of return. Given this selection process, it is not possible to provide a definitive ranking of the selected projects.

[The information follows:]

ARMY CIVIL WORKS PROGRAM
FY 1988 NEW STARTS: CONSTRUCTION
ELIGIBILITY, PRELIMINARY SELECTION, PRIORITIZATION AND SELECTION CRITERIA

ELIGIBILITY CRITERIA

1. Project is authorized for construction, or favorably recommended for implementation in a feasibility study with the Chief of Engineers pre-authorization report complete by 2 May 1986.
2. Project has net NED benefits at applicable interest rate, unless project authorization was not based upon formal benefit/cost evaluation.
3. Preconstruction planning fully funded by 30 September 1987.

PRELIMINARY SELECTION CRITERIA

1. Appropriate evaluation of project merits contained in Corps report.
2. Project is in compliance with the applicable environmental statutes, appropriate to the current stage of implementation.
3. Phase I GDM, Combined GDM, or Reevaluation Report approved by 1 July 1986.
4. Project cost and benefit estimates are firm, and when estimates are based on Phase II GDM studies, the Phase II GDM scheduled for approval by 1 August 1987.
5. If postauthorization change required, only routine issues involved.
6. No known or reasonably anticipated conditions or unresolved issues exist which might prevent project from being placed under construction by 30 June 1988.
7. Draft of Environmental Impact Statement (EIS) or supplement to be filed with EPA by 1 September 1986. Final EIS or supplement scheduled for filing with EPA by 1 August 1987 unless the project is subject to Section 404(r). If a section 404(b)(1) evaluation is required, the final EIS or supplement which contains the evaluation is scheduled to be filed with EPA by 1 May 1987.

PRIORITIZATION CRITERIA

Priority Group 1. - Projects with a benefit - cost ratio (BCR) greater than 1.0 at the current interest rate when only the mainline benefits of hydropower, M&I/AG water supply, commercial navigation, and flood damage reduction are considered.

Priority Group 2. - Projects with a BCR greater than 1.0 at the current interest rate when all benefits are considered, provided a significant amount (over 20 percent) of the benefits are in the mainline categories listed above.

Priority Group 3. - All other projects.

24.

QUESTION: What were the next best ten new start candidates which were reviewed on the same basis as in Question 23, but which were not programmed in FY88 because of budget constraints?

ANSWER: Based on the criteria cited in response to question 23 there were only two projects which were not recommended. Both of the projects had a benefit-cost ratio of less than unity at the 10% discount rate. The two projects would provide flood control for Chaska, MN and Moline, IL.

QUESTION: Section 704 of P.L. 99-662 directs the Corps to study its capability to conserve fish and wildlife and to complete this study within 30 months of enactment. Is this study included in the FY 88 budget or projects for FY 89?

ANSWER: This study is not in the Fiscal Year 1988 budget and development of the Fiscal Year 1989 budget has not begun. I have asked the Corps of Engineers to develop a priority listing of this and the seven other national studies authorized in Title VII. Following my evaluation of that recommendation, we will determine when and how to proceed on this study.

QUESTION: Section 709 of P.L. 99-662 directs the Corps to complete a study of dioxin in the Passaic River within one year. When will this study be completed? Are any funds programmed for this study in the five year budget projections?

ANSWER: Section 709 directs the Administrator of EPA to conduct this study. In the past, the Corps has actively supported EPA in performing dioxin studies in the New York Metropolitan Area.

QUESTION: Section 718 of P.L. 99-662 directs the Corps to study their own boundary and fencing practices within a year. When will this study be completed? Are any funds programmed for this study in the five year budget projections?

ANSWER: The Boundary and Delineation and Fencing Practices Study is scheduled to be completed using available funds and transmitted to Congress in November 1987. Accordingly, no additional funding is projected.

QUESTION: Section 720 of PL 99-662 directs the Corps to study Hydrilla problems on the Potomac River. Are funds programmed for this study at any time in the five year budget projections? When is this study going to be completed?

ANSWER: Funds for control of Hydrilla have been expended in FY 1986, and Local Cooperation Agreements for this work have been executed with the state of Virginia and Maryland. Inasmuch as control efforts are presently underway, no further study efforts for the Potomac River are planned.

29

QUESTION: Section 721 of PL 99-662 directs the Corps to study Chesapeake Bay drought management and finish the study in two years. Are funds programmed for this study at any time in the five year budget projections? When is this study going to be completed?

ANSWER: The limited scope reconnaissance investigation has been completed and is presently under review. Further budgeting for this study will depend upon results of that review.

QUESTION: Section 724 of P.L. 99-662 authorized the Corps to study the problems associated with Hydropower development in the Bay of Fundy with part one of the study to be completed in two years. Are any funds programmed for this study in the administration's five year budget? When will this study be completed?

ANSWER: Funding for this study is not included in the FY 1988 budget request. We are proceeding, to be sure, with some of the over 600 provisions in the new law. We are engaged mainly in reviewing and prioritizing the remaining provisions so that we can procged in an efficient, rational manner with their implementation. Consequently, we have not established a date for starting this study.

31.

QUESTION: Section 728 of P.L. 99-662 authorized the Corps to study the New York Bight. Are any funds programmed for this study in the Administration's five-year budget? When will this study be completed?

ANSWER: Section 728 of P.L. 99-662 authorized a study of the feasibility of extending the Corps Waterways Experiment Station physical hydraulic model to cover the New York Bight as well as a Corps study to develop a recommended environmental quality monitoring system package for the New York Bight. This provision is closely tied to Section 211 of P.L. 99-662, which requires EPA to designate an ocean disposal site alternative to the New York Mud Dump. Environmental monitoring requirements for both the new site and the existing Mud Dump will, to a large degree, influence the direction for the Section 728 feasibility study. The Corps should, by mid-March, have worked out an agreement with EPA on a schedule for the site designation effort, agreement on a dredged material management plan for the two sites and, in turn, an initial direction for data monitoring needs for input to the Section 728 feasibility study.

Because of the above, no funding requirements have yet been identified for the Section 728 study. However, the Corps estimates that any final report proposed on the Section 728 feasibility analysis should not be completed until approximately 6 months to a year after the EPA final designation action for the new ocean disposal.

32.

Question. Section 731 of PL 99-662 authorized the Corps to study rising ocean levels and complete the study in three years. Are any funds programmed for this study in the administration's five year budget? When will this study be completed?

Answer. We have not yet programmed this study, so no completion date has been established. I have asked the Corps of Engineers to develop a priority listing of this and the seven other national studies authorized in Title VII. Following my evaluation of that recommendation, we will determine when and how to proceed on this study.

QUESTION: Section 925 of P.L. 99-662 directed the Corps to print a compilation of water resource laws. When will this action be completed?

ANSWER: Section 925(a) of P.L. 99-662 provides that the compilation will be completed and printed within one year after enactment of the Act, that is, by November 17, 1987. We are currently prioritizing the over 600 provisions in the new law; we have not determined yet when and how to proceed on the compilation.

34.

QUESTION. Describe what aspects of the Upper Mississippi River Master Plan, authorized by Section 1103 of PL 99-662, are programmed in the 5-year budget projection and how much will they cost.

ANSWER. The aspects of the upper Mississippi River Environmental Management Program include: Long Term Resource Monitoring; Traffic Monitoring; Program Management and Habitat Rehabilitation and Enhancement Projects. The level of funding requested by the Corps for the above items, except the Habitat work, is approximately $1,650,000. The Procedure for scheduling Habitat work is for the Corps, in coordination with local interest, to identify habitat projects and submit a fact sheet on each project to ASA(CW) for approval to initiate engineering and design work. Upon completion of the engineering and design, I have requested that the Corps submit the report to me for approval prior to the release of construction funds.

To date, I have approved all engineering and design and construction requests that the Corps has submitted to me.

I might add that in keeping with our current policy, the Corps is not identifying any recreation projects to be accomplished under this authorization.

35

QUESTION: Why is the maintenance of the New York State Barge Canal authorized by Section 1105 of PL 99-662 not budgeted for FY 88? Does the administration oppose funding this activity at any time? When will it support it?

ANSWER: The Corps of Engineers, during the years prior to 1985, examined the feasibility of participating in the operation, maintenance, and rehabilitation of this project. Funds in excess of $1 million where expended for this effort. The Corps concluded that Federal participation could not be justified on the basis of anticipated benefits associated with navigation traffic. Given the Administration's May 21, 1986, position on Section 1105, as well as the information regarding the justification for any potential expenditures which was revealed during the pre-1985 studies, it was not appropriate for the Army to recommend budgeting funds to implement this activity.

36

QUESTION: Section 1114 of P.L. 99-662 authorizes the creation of a Cross Florida National Conservation area and stipulates that "as soon as possible" the Secretary shall acquire the necessary lands to accomplish this end. What is being done to buy these lands?

ANSWER: The total estimated cost of land acquisition for this project is $32 million. Federal budget priorities, in this time of large Federal budget deficits, do not extend to land acquisition in the interest of recreation and fish and wildlife enhancement. Therefore, we are not proceeding at this time to allot the $5 million allocated in the Conference Committee Report accompanying P.L. 99-591, Continuing Appropriations for Fiscal Year 1987.

QUESTION: Is any money programmed in the five year budget to acquire these lands?

ANSWER: Funds have not been programmed to acquire these lands.

QUESTION: When, if ever, will such funding be supported by the Administration?

ANSWER: The project is for land acquisition primarily to provide additional recreation opportunities. Federal water projects designed primarily to provide recreational opportunities are not in agreement with Administration budget priorities and policy to rely on the non-Federal public or private sector to provide public services whenever possible. Therefore, at this time it appears unlikely that funds will be budgeted for land acquisition on this project.

37.

QUESTION: It is my understanding that the Administration policy on recreation projects is not to budget for them even if local sponsors agree to all cost sharing requirements--as much as 50% of project costs. What is the basis for this policy? Why are recreation benefits unacceptable but navigation benefits OK?

ANSWER: The fact that there is a cost sharing policy established for a particular project output does not necessarily mean that the Administration is willing to budget for projects producing primarily that output. When recreation is included in a multi-purpose project, the development will be cost shared on a 50/50 basis. That does not mean, however, that the Administration is willing to budget for studies or projects which have recreation as their primary project output. While it is true that from an economics standpoint there is no difference between dollars of benefits, in our view, recreation is like municipal and industrial water supply, in that it should be the responsibility of the non-Federal sector, whether that sector is private or governmental, particularly in this time of budget austerity. We feel we must limit the use of our available funds to flood control and commercial navigation, which have historically been, and continue to be, the central focus of the Army Corps of Engineers Civil Works program.

38.

QUESTION: Are there any projects of any kind, where local sponsors have come forward and indicated a willingness to fully cost share a project either in writing or verbally which have not been programmed in the budget for other reason? If so, what reasons are they?

ANSWER: There certainly are such projects. Before budgeting for a project, we must have more than an indication of a willingness to cost share. The project must be engineeringly ready and pass our other new starts screening and selection criteria.

39.

QUESTION: P.L. 99-662 directed the establishment of an ability-to-pay determination for flood control cost sharing by the Secretary. How is this determination going to be set, when, and on what basis? Before you formally institute such a procedure, do you intend to discuss your draft criteria with the Congress before finalizing the ability-to-pay criteria? When would you be prepared to discuss this issue more fully? When do you believe you will be prepared to set out how such a determination could be made?

ANSWER: We are making good progress on the ability-to-pay issue and expect to have a specific operational procedure soon. I expect this procedure to evolve over time as we gain more knowledge and experience. Pending adoption of a specific operational procedure, we have considered the willingness of a sponsor to sign a local cooperation agreement to be sufficient evidence of ability to pay. To date, no sponsor has declined to sign an agreement on the basis of inability to pay. I will be pleased to present testimony on this issue at any time, and we will be discussing this and other aspects of Public Law 99-662 with your staff over the next several months. Although all the details of the specific procedure have not been worked out, we are tentatively thinking that the focus will be on certain sponsors in low income states. We also feel that projects with relatively healthy direct benefits should be in a good position to provide the normal level of non-Federal cost sharing.

40.

QUESTION: What is the status of your coordination with Canada on the Rafferty and Alameda Dams Project. How much is programed for this program in the five year Corps budget?

ANSWER: For the past six months, studies have been conducted and discussions held on these proposed projects. Several issues have been resolved, however, many still need to be discussed and resolved. These include such issues as the operating plan, funding schedule, rate of exchange protection through construction, and allocation of costs based on proportionate use. There was $1,922,000 allocated in FY 1977 and $14,800,000 requested in the Fiscal Year 1988 budget request for this activity including Lake Darling. The Fiscal Year 1989 and subsequent year budgets have not been developed.

QUESTION: There is the possibility the state of North Dakota desires to participate in the Dam Safety Assistance Program established under Title 12 of P.L. 99-662. When will funds be available under this program? If no funds are budgeted for this program, please explain the administration's rational for not providing funds for this program.

ANSWER: North Dakota was one of the 16 states evaluated as having an adequate dam safety program, which included adequate state funding, during the Federally conducted National Program of Inspection of Non-Federal Dams. On this basis, we believe North Dakota may wish to participate if the proposed program being funded in the FY 1988 budget request is ever expanded. However, the existing budget constraints precluded our recommending budgetary support for a new Federal role at this time.

ANSWERS TO QUESTIONS RAISED BY SENATOR MITCHELL

General Regulatory Program

1.

QUESTION: With regard to the U.S. Army Corps of Engineers Section 10 and Section 404 regulatory program, how does the budget request for fiscal year 1988 compare with the amounts actually appropriated in fiscal years 1986 and 1987?

ANSWER: The fiscal year 1988 Operation and Maintenance, General, budget request for General Regulatory Functions is $55.3 million compared to the current allocation of $50.0 million for 1987. The fiscal year 1986 appropriation was $49.5 million, the same as in 1984 and 1985; yet actual fiscal year 1986 expenditures amounted to $57.2 million. However, $55.0 million is required in fiscal year 1987 to maintain the same level of service as provided in fiscal year 1986. Thus, we plan to reallocate $5 million to the regulatory program from other Corps operation and maintenance projects which have a surplus of funds.

QUESTION: What changes in the number of personnel or full-time equivalents allocated to the Corps regulatory program are proposed?

ANSWER: The regulatory program is very labor intensive and, therefore, the number of personnel is sensitive to budget adjustments. With the current year allocation of $50.0 million, we anticipate a reduction by the end of this year of between 5 and 8 percent of the programs' strength of about 900 full-time personnel. In addition, most of our temporary and part-time support will be eliminated. An additional $5 million would allow us to maintain our current levels of manpower and service to the public.

QUESTION: If reductions in funding and/or personnel are proposed for the Corps regulatory program, what specific areas of the program will be reduced or eliminated? What will be the effect of these reductions on operation, particularly enforcement, of the Section 404 and Section 10 regulatory program?

ANSWER: A reduction in funding will mean curtailing or eliminating most of our contracts and studies. More importantly, staff reductions will affect application processing, environmental review, and enforcement; there will be delays in the review of permit applications and the preparation of environmental impact studies, and reductions in the numbers of field investigations and inspections for purposes of enforcement. Enforcement will be particularly affected by contract reductions since surveillance is one facet of the regulatory program that can often be performed by others.

4.

QUESTION: What changes in the Corps overall priorities are reflected in the funding and/or personnel changes proposed for the regulatory program?

ANSWER: The Fiscal Year 1988 request has been developed in accordance with established overall priorities. Likewise, in fiscal year 1987, with the re-programming action described above, the Corps will be able to adequately execute the regulatory program within established priorities.

ANSWERS TO QUESTIONS RAISED BY SENATOR STAFFORD

1.

QUESTION: Please list those provisions, programs, projects, or studies in P.L. 99-662 for which funds have been requested for Fiscal Year 1988. Please include the amount you have requested for each of these provisions.

ANSWER: The following table provides this information.

P. L. 99-662
PROJECTS, STUDIES, AND ACTIVITIES IN FY 1988 BUDGET REQUEST
(Dollars in Thousands)

DIV	ACT SECT.	SUB-SECT.	SUBJECT	STATE	FY 1988 AMOUNT
NED	202	A	NEW HAVEN HARBOR	CT	100
NED	202	A	PORTSMOUTH HBR & PISCATAQUA RIVER	NH	7,500
NED	401	A	QUINCY COASTAL STREAMS, TOWN BROOK	MA	6,800
NED	401	A	ROUGHANS POINT	MA	117
NAD	202	B	ARTHUR KILL	NY&NJ	323
NAD	501	A	ATLANTIC COAST OF MD, OCEAN CITY	MD	500
NAD	860		COLD SPRING INLET, NJ IWW	NJ	50
NAD	202	B	FRESH KILLS IN CARTERET	NJ	200
NAD	202	A	GOWANUS CREEK CHANNEL	NY	150
NAD	401	A	GREEN BROOK SUBBASIN, RARITAN RIVER	NJ	1,400
NAD	401	A	HARRISBURG, SUSQUEHANNA/PAXTON	PA	965
NAD	401	A	JAMES RIVER BASIN, RICHMOND	VA	10,000
NAD	202	A	KILL VAN KULL & NEWARK BAY CHANNNEL	NY&NJ	52,000
NAD	401	A	LOCK HAVEN, W. BR SUSQUEHANNA	PA	1,049
NAD	401	A	LOWER SADDLE RIVER	NJ	500
NAD	201	A	NORFOLK HARBOR AND CHANNELS	VA	12,165
NAD	401	C	PASSAIC BASIN TRIBS F.C. (3)	NJ	1,152
NAD	401	A	RAMAPO RIVER AT OAKLAND	NJ	250
NAD	401	A	RAMAPO & MAHWAH RIVERS	NJ&NY	230
NAD	501	A	VIRGINIA BEACH	VA	500
NAD	401	A	WYOMING VALLEY, SUSQUEHANNA RIVER	PA	1,800
SAD	202	A	CHARLESTON HARBOR AND WANDO RIVER	SC	8,000
SAD	501	A	DADE COUNTY NORTH OF HAULOVER	FL	2,534
SAD	202	A	GULFPORT HARBOR	MS	800
SAD	601	A	JACKSONVILLE HARBOR, MILL COVE	FL	2,968
SAD	202	A	MANATEE HARBOR	FL	2,400
SAD	201	A	MOBILE HARBOR	AL	16,200
SAD	401	A	OATES CREEK, SAVANNAH RIVER	GA	400
SAD	301	A	OLIVER L&D	AL	22,000
SAD	202	A	PASCAGOULA HARBOR	MS	900
SAD	401	A	RIO PUERTO NUEVO	PR	1,500
SAD	401	A	ROANOKE RIVER UPPER BASIN (HEADWATERS)	VA	300
SAD	202	A	SAN JUAN HARBOR	PR	520
SAD	202	A	SAVANNAH HARBOR	GA	2,800
SAD	401	A	SOWASHEE CREEK, MERIDIAN	MS	6,000
SAD	401	A	THREEMILE CREEK, MOBILE	AL	5,000
SAD	1153		UPPER ST. JOHN'S RIVER BASIN	FL	4,000
SAD	401	A	VILLAGE CREEK	AL	8,000
SAD	202	A	WILMINGTON HBR - NE CAPE FEAR RIVER	NC	195
ORD	1110		BIG SOUTH FORK NATL R/REC AREA	KY&TN	3,583
ORD	301	A	GALLIPOLIS L&D	OH&WV	8,000
ORD	401	A	HOCKING RIVER, LOGAN	OH	100
ORD	401	A	HOCKING RIVER, NELSONVILLE	OH	200
ORD	401	A	LITTLE MIAMI RIVER, HOLES CREEK	OH	175
ORD	301	A	L&D #7, MONONGAHELA RIVER	PA	3,300
ORD	301	A	L&D #8, MONONGAHELA RIVER	PA	1,100
ORD	401	A	MIAMI RIVER, FAIRFIELD	OH	100
ORD	401	A	SCIOTO RIVER, NORTH CHILLICOTHE	OH	300

P. L. 99-662
PROJECTS, STUDIES, AND ACTIVITIES IN FY 1988 BUDGET REQUEST
(Dollars in Thousands)

DIV	ACT SECT.	SUB-SECT.	SUBJECT	STATE	FY 1988 AMOUNT
ORD	301	B	WINFIELD L&D	WV	1,750
NCD	848		DUNKIRK HARBOR DREDGING	NY	250
NCD	1170		ELLICOTT CREEK	NY	4,240
NCD	401	B	MUSCATINE ISLAND - LOUISA CO.	IA	150
NCD	401	A	NORTH BRANCH CHICAGO RIVER	IL	2,000
NCD	615		PORT ONTARIO HARBOR OF REFUGE	NY	500
NCD	401	A	ROOT RIVER BASIN	MN	247
NCD	401	A	SHEYENNE RIVER/ MAPLE RIVER	ND	439
NCD	1124		SOURIS R., LAKE DARLING, MINOT	ND/CAN	14,800
NCD	401	A	SOUTH FORK ZUMBRO R., ROCHESTER	MN	3,000
NCD	401	A	SOUTH QUINCY DRAIN. & LEVEE DIST.	IL	2,500
LMV	850		BAYOU LAFOURCHE-LAFOURCHE JUMP	LA	52
LMV	401	A	CAPE GIRARDEAU	MO	600
LMV	401	C	LOUISIANA STREAMS, AMITE RIVER	LA	400
LMV	1103	J	L&D 26, MISSISSIPPI RIVER, 2ND LOCK	IL	4,000
LMV	401	A	MALINE CREEK	MO	885
LMV	1128		MERAMEC RIVER	MO	175
LMV	201	A	MISSISSIPPI R. SHIP CHANNEL	LA	8,300
LMV	401	D	MONROE AND WEST MONROE, OUACHITA	LA	340
LMV	401	E	PEARL RIVER, SHOCCOE/LEAKE CO.	MS	900
LMV	401	B	PEARL RIVER, ST. TAMMANY, SLIDELL	LA	210
LMV	401	B	WEST BANK HURRICANE PROT., JEFF. PAR.	LA	500
MRT	601	A	ATCHAFALAYA BASIN FLOODWAY SYSTEM	LA	3,500
MRT	906	F	ATCHAFALAYA FLOODWAY SYSTEM	LA	3,500
MRT	401	A	BUSHLEY BAYOU	LA	105
MRT	401	A	EIGHT MILE CREEK, PARAGOULD	AR	450
MRT	401	A	HORN LAKE CR & TRIBS/COW PEN C	TN&MS	211
MRT	906	F	MISSISSIPPI DELTA REGION	LA	4,500
MRT	401	A	NONCONNAH CR. & JOHNS CR.	TN&MS	231
MRT	601	A	OBION CREEK, W. KENTUCKY TRIBS.	KY	400
MRT	401	A	ST. JOHNS B. & NEW MADRID FLOODWAY	MO	572
SWD	401	A	BOGGY CREEK, AUSTIN	TX	8,200
SWD	202	A	BRAZOS IS. HBR, BROWNSVILLE CHANNNEL	TX	330
SWD	401	A	FOUNTAIN CREEK, PUEBLO	CO	2,500
SWD	401	A	FOURCHE BAYOU BASIN, LITTLE R	AR	2,300
SWD	401	A	HALSTEAD, LITTLE ARKANSAS RIVER	KS	500
SWD	401	A	LAKE WICHITA, HOLLIDAY CREEK	TX	1,500
SWD	401	A	MIDDLE RIO GRANDE, ALBUQUERQUE	NM	400
SWD	401	A	MINGO CREEK, TULSA	OK	2,400
SWD	812		MOUTH OF COLORADO RIVER, DIVERS. CHAN.	TX	1,100
SWD	401	A	PUERCO RIVER & TRIBS., GALLUP	NM	760
SWD	871		RIO GRANDE FLOODWAY, TRUTH OR CONS.	NM	700
SWD	401	A	SIMS BAYOU	TX	850
SWD	201	A	TEXAS CITY CHAN., GALVESTON BAY	TX	500
SWD	725		TUSKAHOMA LAKE, RED RIVER	OK	115
SWD	401	A	UPPER WHITE OAK B. BUFFALO BAYOU & TR	TX	1,050

P. L. 99-662
PROJECTS, STUDIES, AND ACTIVITIES IN FY 1988 BUDGET REQUEST
(Dollars in Thousands)

DIV	ACT SECT.	SUB-SECT.	SUBJECT	STATE	FY 1988 AMOUNT
MRD	401	A	BRUSH CREEK AND TRIBUTARIES	MO&KS	350
MRD	401	A	METRO DENVER, WESTERLY CREEK	CO	700
MRD	401	A	PAPILLION CREEK & TRIBS. LAKES	NE	300
MRD	401	A	PERRY CREEK	IA	174
NPD	301	A	BONNEVILLE L&D	OR&WA	40,000
NPD	401	A	CENTRALIA - CHEHALIS	WA	400
NPD	202	A	GRAYS HARBOR	WA	700
NPD	202	A	ST. PAUL ISLAND	AK	300
SPD	401	C	CALLEGUAS CREEK	CA	200
SPD	823		CORTE MADERA CREEK	CA	1,700
SPD	401	B	GUADALUPE RIVER, SAN JOSE	CA	625
SPD	809		KING HARBOR, REDONDO BEACH	CA	36
SPD	401	A	LITTLE COLORADO R., HOLBROOK	AZ	400
SPD	201	B	LOS ANGELES AND LONG BEACH HARBORS	CA	600
SPD	851		NOYO HARBOR, MENDOCINO CO.	CA	580
SPD	202	A	OAKLAND INNER HARBOR	CA	3,800
SPD	202	A	OAKLAND OUTER HARBOR	CA	6,500
SPD	401	A	REDBANK & FANCHER CREEKS	CA	1,900
SPD	202	A	RICHMOND HARBOR	CA	900
SPD	601	B	RILLITO RIVER, TUCSON	AZ	300
SPD	202	A	SACRAMENTO DEEP WATER SHIP CHAN.	CA	11,000
SPD	1165		SAN LUIS REY, SEC 215 AGREEMENT	CA	8,500
SPD	401	A	SANTA ANA RIVER MAINSTREAM	CA	5,100
POD	401	A	AGANA RIVER	GUAM	2,500
POD	401	A	ALENAIO STREAM	HI	300
POD	202	A	SAIPAN HARBOR	CNMI	350
			TOTAL		370,253

2.

QUESTION: Which provisions, programs, projects, and studies authorized in P.L. 99-662 does the Corps have definite plans to include in future budget requests? What are the factors which determine which projects, programs, etc., are included in the budget? Which projects, if any, were ready to go to construction (authorized, all study work completed, local sponsor ready, etc.) and were not included in your budget request for FY88? If there are any projects in this category, please explain.

ANSWER: While the FY 1988 budget includes requests of some $370 million for various studies, projects, programs and activities included in P.L. 99-662, there still are over 600 provisions in the new law. We are presently engaged in reviewing and prioritizing the remaining provisions so that we can proceed in an efficient, rational manner with their implementation.

3:

QUESTION: Please explain your assumptions about spending funds from the Inland Waterways Trust Fund over the next five years. Please list estimated revenues into the Fund, estimated expenditures, and estimated Fund balances for the next five years.

ANSWER: The FY 87 budget includes appropriations from the Fund of $26 million. Total receipts from the fuel tax and Fund investment income are forecasted to be $81 million, so that the Fund balance at the beginning of FY88 should be $295 million. Over the five year period 1988-92, we anticipate spending an average of $81 million per year and obtaining revenues of $92 million per year, putting the balance at the end of FY92 at $346 million. We expect to begin spending money from the Fund in FY 87 for the Bonneville Navigation Lock, Gallipolis L&D, L&D 26, 2nd Lock, and William Bacon Oliver L&D, Grays Landing L&D #7, Point Marion L&D #8 and Winfield L&D. (Tables are provided on the following pages.)

DAEN-CWR-P
February 3, 1987
Stearns (272-0120)

TABLES FOR QUESTION #3

INLAND WATERWAY TRUST FUND OUTLAYS BY PROJECT (FY 1987 - FY 1992)

PROJECT	FY1987	FY1988	FY1989	FY1990	FY1991	FY1992
Bonneville Nav. Lock, Or & WA	7.0	20.0	17.5	22.0	24.5	5.7
Gallipolis L&D WV & OH	5.1	4.0	19.0	43.7	45.4	21.3
L&D 26, 2nd Lock, IL & MO	1.6	2.0	18.0	40.0	43.3	----
William Bacon Oliver L&D, AL (replacement)	11.0	11.0	15.0	15.0	7.8	----
Grays Landing L&D7, PA Monogahela Rv.	1.4	1.0	1.9	1.0	0.3	21.9
Point Marion L&D #8, PA Monoganela River	----	----	0.9	0.3	0.1	0.1
Winfield L&D WV	----	----	0.8	1.1	1.6	1.1
TOTAL	26.0	38.0	73.0	123.0	123.0	50.0

All figures are in millions of dollars.

TABLES FOR QUESTION #3

INLAND WATERWAYS TRUST FUND (FY 1987- FY 1992)

FY	BEGINNING BALANCE	RECEIPTS	OUTLAYS	ENDING BALANCE
87	$239.9	$81.0	$26.0	$294.9
88	294.9	85.0	38.0	341.9
89	341.9	86.0	73.0	354.9
90	354.9	88.0	123.0	319.9
91	319.9	95.0	123.0	291.6
92	291.9	104.0	50.0	345.9

All figures are in millions of dollars.

4.

QUESTION. Please explain what aspects of the Upper Mississippi River Master Plan have been included in your budget request.

ANSWER. In Fiscal Year 1988, we have budgeted $4,168,000 of which $1,795,000 is for engineering and design studies and $2,373,000 is for construction. The study work includes initiation of three habitat studies and the continuation of the Long Term Resource Monitoring Program, Traffic Monitoring Program and the General Plan Management activities. Construction funds will be used to initiate and complete eight habitat projects.

QUESTION: I notice that the Corps has requested no funding for the state dam safety matching grant program which is authorized in Title XII of P.L. 99-662. Is this because the Corps either disputes the need for such a program or just because the Corps believes that there are higher priorities that should be funded? Has funding been requested for any aspect of Title XII of P.L. 99-662? If so, please elaborate.

ANSWER: We have requested funding of $500,000 in the FY 1988 budget to maintain the existing inventory in accordance with the maintenance provision of Title XII to provide support for state initiatives in the safety of non-Federal dams. However, as indicated in our 1982 report to Congress on the National Program of Inspection of Non-Federal Dams, most states showed an unwillingness to use state resources to implement and maintain effective dam safety programs. Moreover, in light of the existing Federal budget constraints, we should not be budgeting for a new Federal role at this time.

6.

QUESTION: Please list and describe the work you intend to carryout with the 25 million dollars that have been requested for Dam Safety Assurance.

ANSWER: The 25 million dollars will be used to initiate construction of project modifications for dam safety which may be approved during FY 1987 and FY 1988 as a result of studies now underway. Candidates that may emerge from these studies include: Tenkiller Dam, OK, Waco Dam, TX, Beach City Dam, OH, Bolivar Dam, OH, Prado Dam, CA, Isabella Dam, CA, Baldhill Dam, ND, Homme Dam, ND and Lake Traverse Dam, SD and MN. All of these dams are being studied for possible modification to correct hydrological deficiencies.

QUESTION: Please describe the research that will be carried out with the $1.15 million that is proposed for the River Ice Management (RIM) research program. Does any of this research overlap with the research and work authorized under Section 1101 of P.L. 99-662?

ANSWER: The budgeted $1.15 million is primarily for report writing and technology transfer. Video tapes and an EM titled "Winter Navigation on Inland Waterways" will be produced. Existing demonstration activities will be monitored and a prototype ice prow tested.

The objective of the RIM Program is to enhance navigation safety and efficiency on our inland waterways. Section 1101 calls for the control of ice to minimize flood damage and streambank erosion. RIM applies almost entirely to dammed, controlled waterways whereas Section 1101 problems generally occur where there is limited or no flow control. Thus, while the forms of the research differ in the two cases, the basic scientific knowledge is useful in both instances.

8.

QUESTION: Please describe the research and work being carried out under the Repair, Evaluation, Maintenance, and Rehabilitation (REMR) Research and the Dredging Research Program (DRP) programs. Does the Corps anticipate that this work will result in significant savings in the future? Are there other potential areas of research and development which could result in significant savings with respect to water resources project construction, operations, maintenance, rehabilitation, etc., which have not been funded? If so, why are these not being funded?

ANSWER: Since there are several parts to this question, I would like to answer each part separately.

1. Describe the research work being carried out under the REMR and DRP programs.

The REMR program is focused on providing new or improved techniques, tools, and materials to repair, maintain, and rehabilitate our aging water resources facilities and provide new or more efficient tools to manage the Corps repair, maintenance and rehabilitation field efforts. There is no dredging related research in the REMR program. There is no duplication between REMR and DRP.

The DRP is aimed at:

A. Increasing Efficiencies of Processes, Operations & Equipment:

- Examples include the evaluation of various alternatives for the placement of dredged material, which would be environmentally acceptable and also result in a reduction in the cost of dredging. We have been coordinating our efforts with the resource groups, Environmental Protection Agency, Fish & Wildlife Service and the National Marine Fisheries Service and feel that placement options are available to deposit uncontaminated dredged material in the nearshore coastal zone rather than in deep water where it is unavailable to the coastal regime.

- Substantial quantities of material are excavated annually utilizing seagoing hopper dredges and hopper barges. I believe that we can achieve significant production rate increases through the use of improved draghead configurations and also through the use of high pressure water jets on the dragheads, which are the dredging components used to shear the material from the bottom.

- It appears that production performance can be measured through the use of an automated electronic system, to include a magnetic flow meter coupled with a density measurement element. Such a system would reduce and possibly eliminate the use of personnel to monitor the production rates of dredges.

B. Reducing the Number of Change Orders through improved initial Definition of Operation Requirements:

- There are two areas in which I feel we can realize significant cost avoidances.

- Timely and accurate hydrographic surveys of the channel to be dredged are essential to properly define the operational requirments. Surveys are needed prior to dredging to define the yardage which must be removed, during dredging when performance payments are required, and after dredging to ensure that the work has been performed in accordance with the contract provisions, in this area I see the potential for surveying at more rapid speeds, 24-26 miles per hour rather than at the traditional speeds of 6-8 miles per hour. In addition, I feel that permanently installed electronic positioning systems can be utilized to determine the location of dredges to ensure that the vessels, while operating in remote and exposed areas, are dredging in the areas designated in the contract.

- Production performance is largely influenced by the type of material to be excavated. On the one extreme, rock material is obviously very difficult and expensive to excavate while light silts are the least expensive. We need to determine the soil characterisitics of all types of material so that we can better define in the contract specifications the nature of the material to be dredged.

C. Reducing the Economic Impact of Contract Claims:

- The improvements in surveying procedures and equipment and a better knowledge of the characteristics of the soils to be excavated will contribute to a substantial reduction in the number and scope of contract claims.

- With the advent of cost sharing on navigation projects, it is more important than ever that we make every reasonable effort to reduce the impact of contract claims. In order to achieve this, we need to conduct a thorough review and analysis of the clauses of our contract specifications to ensure that they reflect the effects of modern excavation techniques and equipment.

Also, we need to evaluate our management procedures to include the use of automated equipment to rapidly and accurately develop large volumes of engineering and scientific information which can be used in the preparation of the clauses of the contract specifications. In addition, we need to have available actual performance and production data to include regional and national information so that we can identify the capability trends of the different types of dredging plant that are utilized in the management of the national dredging program.

D. Sharing field operative offices successes in reducing costs throughout the Corps.

- The transfer of technology throughout the Corps and to the public, which includes the findings and results of the Dredging Research Program, is the bottom line. We will make certain that our successes, as well as our failures, will be made available on a prompt basis.

2. Does the Corps anticipate that this work will result in significant savings in the future?

Yes, we anticipate not only future savings but we expect to transfer completed research products to the field during the 6 year life of the Dredging Research Program so savings will be realized before the end of the program as has been our experience in the REMR program. We expect the improvements and efficiencies coming from the Dredging Research Program to results is savings on the order of 5-10%.

3. Are there other potential areas of research and development which could result in significant savings with respect to water resources project

construction, operations, maintenance, rehabilitation, etc. which have not been funded? If so why are they not being funded?

Yes, there are other potential areas of research and development which could result in significant savings. These have not been funded because Corps Civil Works research and development budgets, in constant dollar terms, have been steadily declining since FY 80.

Recent funding levels have left very little opportunity to initiate new programs or new work within existing programs. In fact the current FY 87 GI R&D funding level has forced us to suspend work on good R&D work units that were underway. Our FY 88 request will allow us to restart the suspended work units and provide for initiation of some new work.

We need to restore health to this vital, practical, high pay-off program by providing increases in funding as requested and to continue increases each year for several years and then provide stable funding to achieve the greatest benefits for the taxpayer.

Examples of new research and development programs which we feel could have excellent potential to produce savings include a new program on Cost Shared Hydrologic Analysis which would result in procedures and techniques to help our field offices deal effectively and communicate more clearly with local cost sharing partners on how various flood control projects function including advantages and disadvantages of each type to aid in better decision making, more easily understood flood threat realities in physical and statistical terms, and less costly more easily understood hydrologic analysis; a new program on Coastal Geotechnology and Geology which would examine effects of sea level rise on coastal areas, barrier island problems, coastal structure foundation problems, etc; further, there are potential savings from a new Estuaries Evaluation and Management program to examine such questions as estuary sedimentation and channel shoaling, salinity intrusion, and flow and circulation prediction in estuaries.

QUESTION: What is the total amount requested for the Corps Civil and Corps Military research and development budget? How much of this amount is spent on project-related research and development? How much is spent on more generally applicable, or more fundamental long-term research and development?

ANSWER: The total amount of the Corps Civil Works research and development budget request for FY 1988 is $35,025,000. The total Corps military research and development for facilities related technology for FY 1988 is $22,000,000. None of these funds are spent on project-related research and development. All the funds are spent on more generally applicable or fundamental long-term research and development.

Please provide a chart which shows in both real and constant dollars Corps research and development spending for the past 10 years.

ANSWER: A chart which shows both real and constant dollars research and development (R&D) funding for Corps of Engineers Civil Works and Military R&D for FY 1977 to FY 1987 is as follows:

	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
Civil Works ($Millions)											
Real $	23.6	28.0	27.3	29.4	28.5	27.4	28.7	28.3	33.0	33.6	30.4
FY 87 Constant $	40.5	48.2	43.9	43.0	38.1	34.4	32.3	30.1	34.7	35.8	30.4
Military ($Millions)											
Real $	9.5	7.0	9.3	8.5	10.2	11.5	15.5	16.1	18.0	17.8	19.9
FY 87 Constant $	19.9	14.0	17.8	14.9	16.5	16.5	20.0	19.0	19.5	18.3	19.9

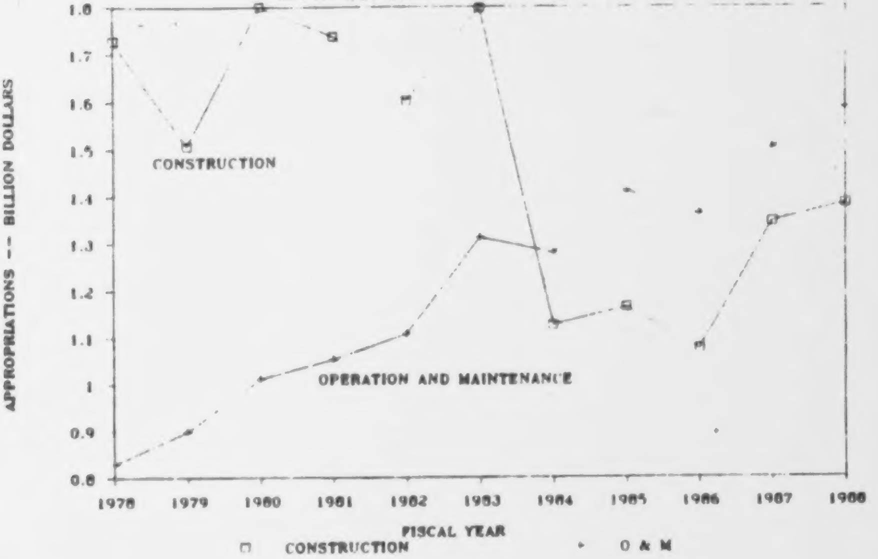
11.

QUESTION: Please provide a graph or graphs which compares Corps civil construction (including Mississippi Rivers and Tributaries construction) and Corps civil operations and maintenance (including MR&T O&M) for the past ten years in real and constant dollars.

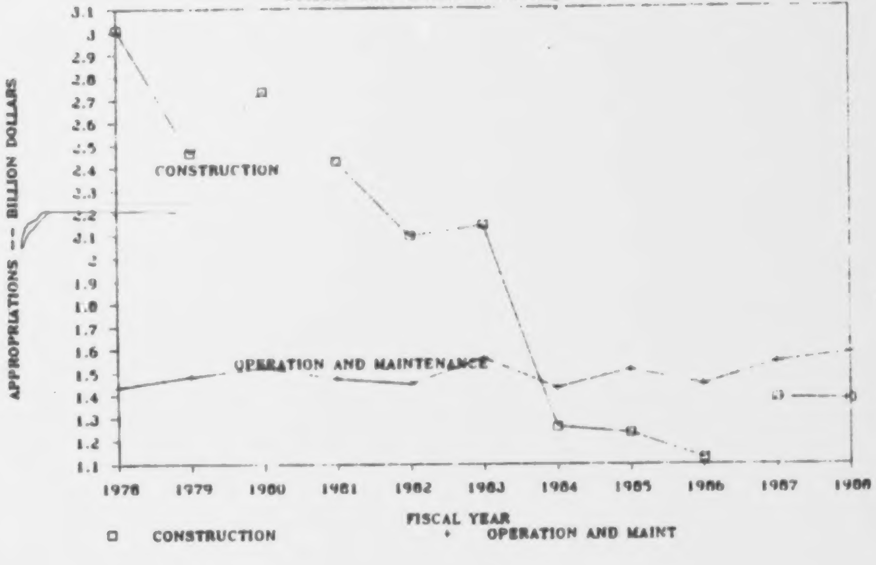
ANSWER: The following graph provides this information.

COMPARISON OF CONSTRUCTION AND O & M

Actual Appropriations (Including MR&T)



October 1986 Dollars (Including MR&T)



12.

QUESTION: Your budget requests $700,000 for mapping activities in several states. Please describe these activities.

ANSWER: This money will be used for updating quadrangle mapping and printing hydrographic navigation folios as required by law for the operation and maintenance activities related to several Mississippi River and Tributaries projects in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee.

ANSWERS TO QUESTIONS RAISED BY COMMITTEE STAFF

1.

QUESTION: Do we have studies with a sponsor that we did not budget for? For example, Yankton, S.D.

ANSWER: Yes, we do, and Yankton, South Dakota, is an example. In that case, the local sponsor desires to implement a recreation facility. In this time of large Federal deficits, it is the Administration's view that implementation of recreation facilities should be the responsibility of the non-Federal public and private sector.

2.

QUESTION: What is the universe of eligible construction new starts in FY88?

ANSWER: The following table provides this information:

ARMY CIVIL WORKS PROGRAM
FY 1988 NEW STARTS: CONSTRUCTION
ELIGIBILITY LIST

AUTH	DIV	PROJECT NAME (TYPE)	STATE	MAJOR OUTPUT
A	NED	TOWN BROOK, QUINCY (DT/R/L/CI)	MA	UF
A	NAD	RICHMOND FILTRATION PLANT (FW)	VA	UF
A	NAD	TAMAQUA (DT)	PA	UF
A	SAD	CHARLESTON HARBOR DEEPENING (H)	SC	DH
A	SAD	INDIAN RIVER COUNTY (BE)	FL	GR
A	SAD	MANATEE HARBOR (H)	FL	DH
A	SAD	RANDLEMAN LAKE (R)	NC	M&I
A	SAD	SAVANNAH RIVER, OATES CREEK (CI)	GA	UF
A	SAD	VILLAGE CREEK (NS/CI)	AL	UF
A	ORD	LOGAN LPP (CI/L)	OH	UF
A	ORD	NELSONVILLE LPP (CI)	OH	UF
A	NCD	BEAVER BAY HARBOR (H)	MN	HRF
A	NCD	CEDAR RIVER HARBOR (H)	MI	RB/SD
A	NCD	CHASKA (CI/L)	MN	UF
A	NCD	DANSVILLE (L/CI)	NY	UF
A	NCD	DAVENPORT (CI)	IA	UF
A	NCD	EAST GRAND FORKS (L/NS/LA)	MN	UF
A	NCD	HANNIBAL (L)	MO	UF
A	NCD	KNIFE RIVER HARBOR (H)	MN	DC
A	NCD	LUTSEN HARBOR (H)	MN	HRF
A	NCD	MOLINE (L/FW)	IL	UF
A	NCD	NORTH BRANCH CHICAGO RIVER (R/DS)	IL	UF
A	NCD	PRESQUE ISLE (BE/BW)	PA	MOD
A	NCD	RENO BEACH - HOWARD FARMS AREAS (FW)	OH	UF/RF
A	NCD	SAVANNA, S. B. HARBOR (H)	IL	RB
A	NCD	STATE ROAD AND EBNER COULEES (CI)	WI	UF
A	LMV	MERAMEC RIVER BASIN (L/NS)	MO	UF
A	MRC	HARRIS FORK CREEK, TN & KY (CI)	TN	UF
A	MRC	L'ANGUILLE RIVER (CI)	AR	RF
A	MRC	MISSISSIPPI DELTA REGION (DS)	LA	F&W
A	SWD	ALAMOGORDO (CI)	NM	UF
NA	SWD	ARK-RED R BASINS CHLOR(REM RED)(R/WQ)	OK/TX	M&I/AG
A	SWD	BIG & LITTLE SALLISAW CREEKS (CI/H)	OK	IW
A	SWD	FOUNTAIN CREEK AT PUEBLO (CI/L)	CO	UF
A	SWD	MINGO CREEK (CI)	OK	UF
A	SWD	PARKER LAKE (R)	OK	M&I
A	SWD	PUERCO RIVER, GALLUP (LA)	NM	UF
A	SWD	RIO GRANDE FLDWY(TRUTH OR CONSEQ)(R)	NM	UF
A	MRD	WESTERLY CREEK (CI)	CO	UF

ARMY CIVIL WORKS PROGRAM
FY 1988 NEW STARTS: CONSTRUCTION
ELIGIBILITY LIST

AUTH	DIV	PROJECT NAME (TYPE)	STATE	MAJOR OUTPUT
A	NPD	BETHEL BANK STABILIZATION (BS)	AK	UF
A	NPD	BONNEVILLE POWER UNITS, OR & WA (L&D)	OR	HP
A	NPD	CHETCO RIVER (CI)	OR	SD
A	NPD	JOHNSON CREEK (CI)	OR	UF
A	NPD	KAKE HARBOR (H/BW)	AK	SD
A	NPD	PENINSULA DRAINAGE DIST NO. 2 (CI)	OR	UF
A	NPD	STRUBE LAKE & COUGAR ADD'L UNITS (R)	OR	HP
A	NPD	ZINTEL CANYON DAM (R)	WA	UF
A	SPD	OAKLAND INNER HARBOR (CI)	CA	DH
A	SPD	RICHMOND HARBOR (H)	CA	DH
A	SPD	SAN LUIS REY RIVER (CI/L)	CA	UF
	POD	(NONE)		

NOTE: Additional output shown when it provides over 20% of benefits or has a potential for requiring an additional sponsor for cost sharing.

LEGEND
FY 1988 NEW START CANDIDATES

PROJECT TYPE

BE - Beach Erosion
BS - Bank Stabilization
BW - Breakwater
CI - Channel Improvement
DS - Freshwater Diversion Structure
DT - Diversion Tunnel
FW - Floodwall
H - Harbor
L - Levee
LA - Land Acquisition
L&D - Lock and Dam
NS - Non-structural
R - Reservoir
WQ - Water Quality Infrastructure

MAJOR OUTPUT - CONSTRUCTION

AG - Agricultural Water Supply
AR - Area Redevelopment
DC - Deficiency Correction
DD - Commercial Navigation - Deep Draft Over 45 Feet
DH - Commercial Navigation - Deep Draft
FH - Fishing and Hunting
F&W - Fish and Wildlife Mitigation or Enhancement
GR - General Recreation
HP - Single Purpose Hydroelectric Power
HRF - Harbor of Refuge
IW - Inland Waterway
L&D - Commercial Navigation - Lock and Dam
M&I - Municipal and Industrial Water Supply
MIT - Mitigation of Damages
MOD - Project Modification
MP - Multiple Purpose, incl. Power
RB - Recreational Boating
RF - Rural Flood Damage Reduction
SD - Commercial Navigation - Shallow Draft
SE - Streambank Erosion
UF - Urban Flood Damage Reduction

AUTH STATUS

A - Authorized
NA - Not Authorized

4.

QUESTION: What would be the impact of a FY88 freeze equal to FY87 appropriations?

1. on a total Civil Works program basis
2. by individual appropriation titles

ANSWER: The following paper provides the answers to these questions.

IMPACTS OF FY 1988 FREEZE EQUAL TO FY 1987 APPROPRIATIONS

14 Feb 87(1910D)

Freezing at the FY 1987 appropriation level the President's FY 1988 Budget Request would result in a decrease of $134.2 million in the Army's $3,271.2 million budget request for the FY 1988 Civil Works program. The impact of such a reduction on the FY 1987 proposed program will be particularly severe for the O&M program which would be required to absorb over 60 percent of the reduction. The programs funded under the General Expenses appropriation account also will be adversely affected; we would be unable to absorb several cost adjustments over which we have no control and a one-time cost of doing business increase. The more critical programmatic impacts that would accrue are listed below by the major individual appropriation accounts.

IMPACT ON CONSTRUCTION, GENERAL PROGRAM

A decrease of $39.1 million would be applied to the $1,188 million included in the President's FY 1988 budget for the Construction, General program. In order to minimize the impact of this reduction, emphasis would be given to: initiation of construction of only those new starts on which we have contractually agreed to proceed; finishing projects that are budgeted for completion in FY 1988; continuing projects that would provide mainline benefits, namely flood damage reduction, commercial navigation, hydropower, or M&I water supply; slowing down projects that would provide little or no mainline benefits; and delaying the initiation of new start construction projects if we have not signed an agreement with the local project sponsors. These measures would maintain, to the most practicable extent feasible, our scheduled commitments for project construction with mainline benefits.

IMPACT ON OPERATION AND MAINTENANCE, GENERAL PROGRAM

The $1.47 billion included in the President's FY 1988 budget for the Operation and Maintenance, General program would be reduced by $80.2 million. If the reduction was applied proportionately across-the-board, the result would be to reduce the funds available for operation and maintenance of: the 256 harbor projects and 37 inland waterways by $49.6 million; the 275 flood control projects by $13.6 million; and the 72 hydroelectric projects by $17.0 million. For all recreational and some commercial harbors, the across-the-board cuts would result in dredging reductions. Transfer capabilities would be used to prevent disruption to commercial traffic. Although operation of the locks on the major waterways would be continued, waterways with reduced commercial traffic would be converted to caretaker status. Maintenance activities at the flood control and hydropower reservoirs would be reduced. Reduction in power output could be minimized by adjustment in the operating schedules. Concurrently, the number of recreation areas operated by the Corps would be reduced, as would the hours that those facilities remain open to the public. Finally, some preventive maintenance, both structural and for equipment, scheduled to be undertaken during the budget year would be deferred. Continuing maintenance contracts awarded in the prior Fiscal Year would be completed.

If the $80.2 million reduction was applied programmatically, some $12.5 million for dredging of approximately 20 navigation projects which carry less than 25,000 tons of commerce annually would be deferred as would $32.1 million for maintenance activities on an additional 60 navigation projects. Similarly, preventive maintenance, equipment, and some scheduled maintenance amounting to $35.6 million for some flood control, navigation, and hydropower projects would be deferred. Under this reprogramming scenario, disruption to commercial traffic could be minimized and, on a comparative basis, less serious maintenance deferred. In all cases, the cost for the deferred maintenance will increase due to inflation and the adverse effects from continued use and exposure until finally undertaken in the outyears.

IMPACT ON MISSISSIPPI RIVER AND TRIBUTARIES PROJECT

A reduction of $6.2 million would be applied to the FY 1988 budget request of $317 million for the MR&T project. Proportional reduction in the individual studies, engineering and design, construction, and operation and maintenance activities funded under this project would result in programming situations that would require transfer of funds to avoid unacceptable impacts. Under the planning phase of the MR&T program, two studies scheduled for completion in FY 1988 would require transfer of funds to avoid the need to seek additional funds in FY 1989. In addition, the funding of several cost-shared feasibility phase studies would be restored, given the financing commitments made by the sponsor. The other studies would be delayed.

In the majority of the construction projects, there are one or more contracts or land acquisition work scheduled for initiation which could be deferred, thereby extending the overall schedules. For the remainder of the construction program, the proportional cuts would produce schedule slippages in various degrees.

The reduction in the operation and maintenance program would result in a curtailment of maintenance work relative to non-critical or lower-priority repairs. There would be no cuts taken in the operation of the projects. Operation activities would continue for the purposes as originally intended.

If we were permitted to reprogram the work funded under this account, the reduction would be applied to the various phases where the impact would be the least severe. In that case some of the projects could proceed as scheduled.

IMPACT ON THE GENERAL INVESTIGATIONS PROGRAM

The President's budget includes a request of $133 million for the General Investigations (GI) program. The Fiscal Year 1987 appropriation for this account was $136.287 million. Therefore, a freeze to the Fiscal Year 1987 level would not have any adverse impact on this account.

IMPACT ON THE GENERAL EXPENSES ACCOUNT

The President's budget includes a request of $128.2 million for the General Expenses account which would be some $10 million greater than that approprited for FY 1987, assuming the supplemental seeking the transfer of $3.2 million from the Construction, General account is enacted. A reduction of $10.0 million would constrain the effective management of the overall program. We would be unable to absorb several cost adjustments that we have no control over and a one-time cost of doing business increase. Specifically, these adjustments include:

- $4.5 million to personnnel costs to cover anticipated employer contributions under the new Federal Employee Retirement System and the January 1987 pay raise,
- $1.0 million increase in the Standard Level User Charge (SLUC) projected by the General Service Administration (GSA),
- $1.1 million for the GSA mandated purchase of telephone equipment used in the Federal Telecommunications system (FTS), along with the conversion of FTS costs within the Corps from assigned personnel strength to actual usage, and,
- A one-time cost of $2.9 million for computer software conversion in connection with the congressionally authorized Corps of Engineers Automation Plan (CEAP).

About $33 million under this account are fixed costs for rent, utilities and communications and mission support costs for ADP, supplies and training. This leaves a balance of $90 million in personnel costs that would have to absorb most of the $10.0 million reduction imposed on this account. The reduction would necessitate funding the equivalent of 120 workyears from other sources, in order to continue the quality leadership and direction necessary to assure that all programmed activities are planned and executed effectively, and are responsive to the objectives and intent of both the Administration and the Congress.

5.

a. QUESTION: How many FTEs in the Superfund?

a. ANSWER: There are 69 FTEs in the Superfund.

b. QUESTION: Do a table for all Support for Others, broken down at least by major program, and going back five years if possible.

b. ANSWER:

USACE Resources
Civil Program
Work for Others
Civilian Manpower Requirement
FY 82 - 88

Agency	Manyear Requirement						
	Fiscal Year						
	82	83	84	85	86	87	88
U. S. Federal							
Agency for International Development					5		
Appalachian Regional Commission					1		

Agency	Manyear Requirement						
	Fiscal Year						
	82	83	84	85	86	87	88
U. S. Federal (cont'd)							
Bonneville Power Authority						1	1
Department of Agriculture							
Soil Conservation Service					1		
Department of Energy	30	30	60	60	23	12	12
Nuclear Regulatory Agency			4	4		1	1
Department of Interior					11		
Bureau of Indian Affairs			12	12	11	2	2
Bureau of Reclamation						6	6
National Park Service			5	5	9	19	19
Department of Justice							
Drug Enforcement Agency						7	7
Federal Bureau of Prisons					10		
Departmment of Navy			33	33	33	35	35
Department of Transportation			15	15	18	1	1
Coast Guard Service			1	1	16		
Federal Aviation Administration						2	2
Federal Highway Administration					8		
Federal Railway Administration					1		

Agency	Manyear Requirement						
	Fiscal Year						
	82	83	84	85	86	87	88
U. S. Federal (cont'd)							
Environmental Protection Agency							
Construction Grants Program	500	500	466	466	443	255	255
Superfund Program			68	68	80	69	69
Federal Emergency Management Agency	25	25	113	113	82	147	147
General Services Administration						12	12
Information Agency							
Voice of America					20	3	3
Library of Congress					7		
Tennessee Valley Authority					1	1	1
Subtotal	555	555	747	747	780	573	573
U. S. States							
All					35		
Alabama						2	2
Arkansas						7	7
Colorado, Denver Water Board			10	10		2	2
Connecticut, Colebrook River Lake			6	6			
Florida						2	2

Agency	Manyear Requirement						
	Fiscal Year						
	82	83	84	85	86	87	88
U. S. States (cont'd)							
Idaho, Boise Water Control Board			1	1		5	5
Iowa						1	1
Montana, Fort Peck						3	3
Mississippi						1	1
New Mexico						1	1
North Dakota, Garrison						3	3
South Dakota, Fort Randall						1	1
Vermont, North Hartland			2	2			
Washington, Seattle	25	25	32	32			
Subtotal	25	25	51	51	35	28	28
Other U. S. Entities							
District of Columbia							
Washington Aqueduct	274	274	266				
Other					5		
Puerto Rico (Martin Pena Canal)			4	4			
Subtotal	274	274	270	4	5		

Agency	Manyear Requirement						
	Fiscal Year						
	82	83	84	85	86	87	88
Other							
All (except South Pacific Islands)					5	155	155
International Boundary and Water Commission (Texas/Mexico, Amistad Dam)	21	21	5	5			
Gabon	8	8					
Korea	5	5					
Niger	9	9					
Red Sea Commission	3	3					
South Pacific Islands						7	7
Subtotal	46	46	5	5	5	162	162
Total	900	900	1073	907	792	763	763

7.

QUESTION: The Committee recently passed a study resolution to investigate flood control for the Milk River Basin, Montana. What course of action is necessary to get funds included in the Fiscal Year 1988 budget?

ANSWER: The President has proposed a budget for Fiscal Year 1988 with the recognition Congress has the right to modify that approval. It is emphasized that the total amount proposed for the Army's Civil Works Program in the President's Budget for Fiscal Year 1988 is the appropriate amount consistent with the Administration's assessment of national priorities for Federal investments and the objectives of avoiding large budget deficits and the serious adverse effect that Government borrowing is having on the national economy. Therefore, if funds were added to initiate and complete the reconnaissance phase study on the Milk River Basin, an offsetting reduction would be required in order to maintain our overall budgetary objectives.

6.

QUESTION: Since the FY88 budget was done before the WRDA 1986 was passed, what consideration was given to revising the '88 budget or requesting a Supplemental?

ANSWER: As we indicated in response to a question from Senator Stafford, the FY 1988 budget request does include some funding for a number of individual studies, projects and activities included in P.L. 99-662. However, as we also stated, we are in the process of reviewing and monitoring the remaining of the over 600 provisions of the law so we can proceed with implementation in an orderly and effective manner. Accordingly, we do not contemplate revising the budget or requesting additional funds at this time.

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W
WASHINGTON, D. C. 20006

February 9, 1987

The Honorable Quentin N. Burdick
Chairman
Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510-6175

The Honorable Robert T. Stafford
Ranking Minority Member
Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510-6175

Gentlemen:

I appreciate the opportunity to respond to your inquiries regarding the fiscal year 1988 Budget Request submitted by the Council on Environmental Quality and the Office of Environmental Quality. Copies of our Budget Justification, which were provided to the Senate Appropriations Subcommittee on HUD and Independent Agencies, are enclosed in order to provide specific details on the agency's request. Answers to your particular questions are set forth below:

1. CEQ/OEQ has requested a budget authority of $862,000 for FY 1988. This level of funding is $62,000 above the agency's appropriation for FY 1987 as passed by Congress. It is $42,000 higher than the amount requested by CEQ/OEQ for FY 1987.

The increased funding sought does not reflect any additional programs or personnel, but rather is due primarily to the requirements of the 3% pay increase for civilian employees, the Federal Employees Retirement System, and a substantial rise in the Standard Level User Charge (SLUC). In fact, the only object classifications which show an increase between FY 1987 and FY 1988 are in personnel and benefits, SLUC, and (to a minor extent) travel. Every other category remains at the FY 1987 level, or has been decreased. See CEQ/OEQ Budget Justification at 36b.

2. The agency's FY 1987 Budget Request sought increased funding over the level appropriated in FY 1986 in order to, among other things, bring the agency's staff level up to its ceiling of 13 full-time equivalents. This staffing level is continued in the FY 1988 Budget Request; no personnel increases or decreases are proposed for FY 1988 compared with FY 1987 levels.

Specifically, the FY 1987 Budget Request sought the resources needed for the hiring of four additional staff people, including two individuals with scientific and/or technical expertise. One of the four (an attorney specializing in biotechnology and science policy issues) has been hired. The fourth position would be a part-time secretary. We are in the process of recruiting for the remaining positions and expect them to be filled during the course of the current fiscal year.

At the full staff level, CEQ/OEQ will be better able to fulfill its obligations under the National Environmental Policy Act to advise the President on environmental issues, prepare the annual Environmental Quality Report, and assist other federal agencies in complying with the environmental impact statement requirements of the statute. For more detail regarding the agency's past accomplishments and future endeavors, please refer to the CEQ/OEQ Budget Justification at 10-33.

3. The only supplemental appropriation to be sought by CEQ/OEQ in FY 1987 will be for $6,000 to partially cover the 3% pay increase which went into effect on January 1, 1987.

4. The Office of Environmental Quality, a separate entity from the Council on Environmental Quality, will be seeking reauthorization in FY 1987. Although CEQ was permanently authorized under the National Environmental Policy Act, OEQ undergoes reauthorization every several years. The last reauthorization expired in September, 1986.

OEQ is considering other proposals which could be added to the request for reauthorization. These proposals are currently in very preliminary stages and have not been submitted to the Office of Management and Budget for clearance. The proposals being considered, however, would have no budgetary impact.

The Honorable Quentin N. Burdick
The Honorable Robert T. Stafford
February 9, 1987
Page Three

Your letter also made reference to earlier correspondence regarding the problems of ozone depletion and the "greenhouse effect." Let me first apologize for the length of time it has taken for a response. I do assure you that such a response is in the process of being prepared and will be forwarded within a few days.

I hope the answers provided above are sufficient for your needs. The Council will be pleased to provide any other information or material your Committee may request.

Sincerely,

A. Alan Hill

A. Alan Hill
Chairman, Council on Environmental Quality
Director, Office of Environmental Quality

Enclosure

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Economic Development
Washington, D.C. 20230

18 FEB 1987

Honorable Quentin N. Burdick
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D. C. 20510-6175

Dear Mr. Chairman:

Thank you for your cosigned letter regarding the budget request for the Economic Development Administration (EDA).

The written statement you requested relative to the FY 1988 budget request has not been finalized. However, I am enclosing testimonial responses to the specific questions contained in your letter.

Sincerely,

Mary Ann Baron

for Orson G. Swindle, III
Assistant Secretary
for Economic Development

Enclosure

DEPARTMENT OF COMMERCE
Economic Development Administration
Questions and Responses
Committee on Environment and Public Works

Question:

Please contrast the FY 1988 request with the FY 1987 request and the appropriated level. What effect will proposed increases or reductions have on agency programs?

Response:

The FY 1988 budget request proposes the termination of all economic development assistance programs. The FY 1987 appropriation enacted to date for economic development assistance programs is $180,443,000 in annual funds and $9,500,000 in project-specific, Congressional mandated add-ons.

Question:

What personnel increases or decreases are being proposed in FY 1988 compared with FY 1987 levels?

Response:

The FY 1988 budget request proposes a decrease in personnel of 197 positions, from 375 in FY 1987 to 178 in FY 1988. The budget request contains 197 permanent positions in FY 1988; however, 19 of these positions are for other Commerce programs also proposed for termination.

Question:

Please discuss any proposed rescissions, deferrals or supplementals proposed for FY 1987?

Response:

The FY 1988 budget request proposes the rescission of $169,668,000 in currently available FY 1987 funds. The rescission proposal includes $114,413,000 of the FY 1987 annual appropriation of $180,443,000 and all of the $9,500,000 FY 1987 Congressional add-ons; in addition, the rescission proposal contains $16,891,000 in reappropriated "Local Public Works" balances and $28,864,000 in prior-period unobligated balances. The request also contains a supplemental request to reappropriate $38,520,000 of the FY 1987 annual appropriation of $180,443,000 to fund administrative phaseout costs through FY 1992. The budget request does not contain any deferrals.

Question:

Please indicate if any legislative initiatives are necessary, or are being considered, to implement any part of the agency's FY 1988 budget request. If so, please describe these proposals and specify the budgetary impact of each provision.

Response:

Economic Development Administration
Fiscal Year 1988 Legislative Proposals

ABOLITION OF THE ECONOMIC DEVELOPMENT ADMINISTRATION

The Department will resubmit a legislative proposal to repeal the Public Works and Economic Development Act of 1965, 42 U.S.C. § 312 et seq., and to abolish the Economic Development Administration (EDA).

EDA currently conducts grant and loan guarantee programs to assist communities and firms located in economically distressed areas to create or retain jobs. Funding for these programs was $189,943,000 in FY 1987, with an additional $25,000,000 for administration. Experience over the years has demonstrated that EDA programs are inefficient, unreliable and improperly involve the Federal Government in matters relating to predominately local economic development. Accordingly, the Administration is seeking to terminate these programs. The Administration submitted a similar proposal for the 99th Congress on March 18, 1985 (H.R. 2213, S. 880).

The budget request for FY 1988 will seek such appropriations as necessary to allow for the orderly phase out of the agency. The proposal will also provide for the establishment of an Office of Grants and Loan Administration to facilitate the orderly phase out of EDA programs and other Departmental financial assistance programs which the Administration is seeking to terminate (e.g., Trade Adjustment Assistance, Public Telecommunications Facilities Grants and fisheries grants).

SALE OF LOANS

Since FY 1983, the Congress has limited the Secretary's authority to conduct a public sale of loans held by the Department in connection with the EDA and Trade Adjustment Assistance loan programs by including in the Appropriations Act a prohibition against the use of funds to sell any loan to private interest except with the consent of the borrower. Because individual borrowers are reluctant to consent to the sale of their loans unless they know the identity of the purchaser beforehand, this limitation has effectively eliminated the Department's authority to conduct a public sale of these loans. As a result, the Department has not been able to meet its debt collection goals relating to the public sale of loans.

The Department sent a legislative proposal to repeal this limitation (the "McDade Amendment") in the Department of Commerce Appropriation Act, 1985, on April 15, 1985, and sent a revised proposal to repeal the limitation in the Department of Commerce Appropriation Act, 1986, on July 17, 1986. No action was taken on these proposals.

While section 103 of the Department of Commerce Appropriation Act, 1987 (as set out in title I of section 101(b) of the Continuing Resolution for FY 1987, Pub. L. No. 99-500), extended the limitation through FY 1987, section 4101 of the Omnibus Budget Reconciliation Act of 1986, Pub. L. No. 99-509, mandates the Secretary of Commerce, notwithstanding any other provision of law, to sell defaulted notes held by the Economic Development Administration in such amounts as to realize net proceeds of not less than $50 million during FY 1987. As a result, the limitation in the Commerce Appropriation Act, 1987 does not apply to the sale of defaulted notes as needed to obtain $50 million in net proceeds. The Department may resubmit the proposal to repeal the limitation in the Commerce Appropriation Act in its entirety in order to restore the Secretary's flexibility to sell loans which are current if he determines such a sale would be in the best interest of the Government.

STATEMENT BY

BEN C. RUSCHE
DIRECTOR
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
U. S. DEPARTMENT OF ENERGY

BEFORE THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

FEBRUARY 13, 1987

STATEMENT FOR THE RECORD

Mr. Chairman and Members of the Committee:

I am pleased to present to you detailed information concerning the 1988 budget for the U.S. Department of Energy's (DOE's) Office of Civilian Radioactive Waste Management. It includes major activities planned for FY 1988 under the Nuclear Waste Fund program, as well as under the Civilian Radioactive Waste Research and Development program and provides a current status of implementation of and plans under the Nuclear Waste Policy Act of 1982 (NWPA). Since the NWPA requires the annual submission of a triennial budget under the Nuclear Waste Fund, in my discussion of the FY 1988 Nuclear Waste Fund program, estimates for FY 1989 and FY 1990 are included.

BUDGET OVERVIEW

The FY 1988 funding level required to carry out the program as in the recently issued draft Mission Plan amendment is estimated to be $725 million. However, the actual funding level requested at this time is $500 million. This is based upon the recognition that Congressional direction provided in the FY 1987 Continuing Resolution indicated the need to interact with Congress and to resolve external issues before moving at the pace we believe is necessary.

Authorization for the higher funding level ($725 million) would be appropriate after satisfactory resolution of the issues presented in the draft Mission Plan amendment and outlined in the FY 1988 funding estimate. Therefore, upon satisfactory resolution of the issues, an amendment to the FY 1988 budget request is planned to be submitted to provide the required funding to carry out the program as described in the funding estimate.

The NWPA created the Nuclear Waste Fund, which is financed by fees collected from owners and generators of spent nuclear fuel and high-level radioactive waste. The FY 1988 funding estimate for the Nuclear Waste Fund is $725 million, compared to $499 million appropriated in the Continuing Resolution for FY 1987. The Nuclear Waste Fund budget estimate for FY 1989 is $1.10 billion and for FY 1990 is $1.06 billion.

Research and development (R&D) activities not financed under the Nuclear Waste Fund are funded under the Energy Supply R&D appropriation in a program entitled Civilian Radioactive Waste R&D. The FY 1988 budget request for Civilian Radioactive Waste R&D is $5 million, compared to $6.5 million in FY 1987.

The FY 1988 budget request for budget authority funded by the Nuclear Waste Fund is summarized in Table 1. The FY 1988 Departmental budget request for Civilian Radioactive Waste R&D is summarized in Table 2. Under the Nuclear Waste Fund, the FY 1988 estimate will provide for extensive site characterization activities including the start of exploratory shaft construction, and conducting intensive engineering tests and analyses to support the waste package and repository designs for the first repository. Actual exploratory shaft construction is planned to commence in FY 1988 at two of the three candidate repository sites approved by the President May 28, 1986, for site characterization.

The FY 1988 funding estimate will also provide for non-site-specific technical studies in alternative geologic media to determine their suitability for hosting a second geologic repository. A significant portion of these studies is expected to involve cooperative efforts with other countries. While construction of a second repository is not authorized by Congress, DOE is committed to a two-repository system and, based on a number of factors to be discussed later, DOE believes that the earliest the Congress needs to consider site-specific work for a second repository is in the mid- to late-1990s.

In addition to an increase in the budget related to first repository site characterization activities, the FY 1988 funding estimate also represents an increase over FY 1987 in activities related to the Monitored Retrievable Storage (MRS) program, should Congress adopt the proposal required by Section 141 of the NWPA, and which we plan to submit as soon as permitted by the courts. The FY 1988 estimate of $58 million compared to $20 million in FY 1987 assumes Congressional approval to proceed with activities that are critical to the deployment of an MRS facility. In that proposal, DOE will recommend the construction of an MRS facility centrally located to the majority of spent fuel generated to receive, consolidate and package spent fuel for bulk shipment to a permanent repository.

The program proposed to be funded from the Nuclear Waste Fund is designed to ensure that the activities and facilities authorized by the NWPA are carried out in a vigorous and responsible manner.

The Act authorized a number of key activities, that, taken together, will meet the objective of providing for the timely and permanent disposal of spent fuel and high-level radioactive waste. Specifically, the NWPA authorizes the siting, development and operation of a geologic repository and the necessary transportation system for moving the wastes to the repository. These authorities along with other key requirements stated in the NWPA -- including the need to obtain Congressional authorization for the construction of a second repository and an MRS facility -- constitute the set of activities necessary to implement the NWPA. These activities reflect the clear intent of the NWPA, and their successful completion will result in meeting the following goals and objectives of the Civilian Radioactive Waste Management Program:

1. To site, obtain licenses for, construct and operate by January 31, 1998, a waste management system such that the disposal of spent fuel and high-level waste from commercial nuclear power plants and high-level radioactive waste from atomic energy defense activities can be accomplished in a manner that is safe and environmentally acceptable and in conformance with the NWPA.

2. To conduct a technical program of non-site-specific studies into the suitability of alternative geologic media for a second repository.
3. To develop and operate a safe, efficient system to transport spent fuel and high-level waste from sources of generation or storage to the disposal destination.

TABLE 1

FY 1988 CONGRESSIONAL BUDGET
NUCLEAR WASTE FUND
($in_Thousands)

	FY 1987 Approp.	FY 1988 Request
NUCLEAR_WASTE_FUND		
Repository Development		
o First Repository	$307,446	$525,044
o Second Repository	19,800	24,000
Monitored Retrievable Storage	20,000	58,000
Transportation and Systems Integration	26,000	63,043
Program Management and Technical Support	46,754	54,913
	79,000 a/	
TOTAL	$499,000	$725,000
Less		225,000 b/
FY 1988 CONGRESSIONAL BUDGET REQUEST		$500,000
Projected Receipts		
o One mill/KHh fee	$434,600 1/	$481,300 1/
o One-time fee	6,000	31,200
TOTAL	$440,600	$512,500
Interest Income	$133,500 2/	$136,300 2/
TOTAL	$574,100 2/	$648,800 2/
Staffing Full-Time Equivalents (FTE's)	311	357

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[a] DOE reserve pending satisfactory completion of the terms contained in the Continuing Resolution, P.L. 99-500 and P.L. 99-591.

[b] The funding level required to carryout the program as described in the Department of Energy's budget and in this statement and shown in the draft amendment to the Mission Plan is estimated to be $725 million. The President's request is based upon the recognition that Congressional direction provided in the FY 1987 Continuing Resolution indicated the need to interact with Congress and to resolve external issues before moving forward as planned. A request for a higher funding level would be appropriate presuming satisfactory resolution of these issues. Therefore, upon satisfactory resolution, an amendment to the FY 1988 budget will be submitted to provide the required funding to carry out the program described herein.

[1] Based on projected net nuclear electricity generation as a result of the recent Wisconsin court decision. (Wisconsin Electric Power Company, et al vs Hodel, 84-8571 (decided December 6, 1985)).

[2] Based on projected average yield of Treasury security portfolio.

TABLE 2

FY 1988 CONGRESSIONAL BUDGET
ENERGY SUPPLY RESEARCH AND DEVELOPMENT ACTIVITIES
($ in Thousands)

	FY 1987 Approp.	FY 1988 Request
CIVILIAN RADIOACTIVE WASTE R&D		
Spent Fuel Storage Development	$ 6,300	$ 4,800
Alternative Disposal Concepts	-----	------
Program Direction	200	200
TOTAL	$ 6,500	$ 5,000
Staffing FTE's	3	3

An increase in Transportation and Systems Integration in FY 1988 is also shown. The FY 1988 request of $63.0 million compared to the FY 1987 appropriation of $26 million from the Nuclear Waste Fund represents the completion of design and the fabrication of scale models for the transportation casks; implementation of a comprehensive public information plan and the development of information resources; increased reactor infrastructure evaluations and operations configuration studies; and publication of the Comprehensive Transportation Plan. In addition, for systems integration, the increase is primarily attributable to engineering development. Contracts will be awarded for final design, hardware fabrication and demonstration of the rod consolidation process. And systems analysis activities will increase to ensure the overall waste management system is integrated into an efficient cost-effective system.

The FY 1988 budget request under the Civilian Radioactive Waste R&D program of $5 million represents a decrease from the FY 1987 budget of $6.5 million. Essentially, this results from the fact that two of the three cooperative demonstrations being carried out under Section 222 of the NWPA will be completed during FY 1988 and the final reports will be issued.

NUCLEAR WASTE FUND PROGRAM

I would like now to give a brief status of the program.

In January, we released a draft amendment to the Mission Plan for the Civilian Radioactive Waste Management Program and the Secretary testified before you to discuss the purpose of the information contained in the draft amendment. We have sent it to States and affected Indian Tribes, the Nuclear Regulatory Commission (NRC) and other Federal agencies for comment and have made it available for public inspection. During the 60-day comment period, we plan to meet with affected States and Indian Tribes to answer any questions they may have regarding the amendment that may assist them in formulating their formal comments.

The purpose of the Mission Plan amendment is to keep Congress, as well as others, informed on progress in the program. When the Mission Plan was issued in 1985, we said it is "today's best estimate of the scientific, engineering and institutional information needed to make informed decisions as we proceed with developing ... the disposal system." We explained that it is a planning document, and as such, we would review it annually and revise it on an as-needed basis. The purpose of amending the Plan is to ensure that it reflects current significant developments and plans.

The draft amendment is the first such amendment and presents our estimate of how and on what schedule we believe we can best fulfill our responsibilities in carrying out the program. After the 60-day comment period, we will revise the amendment in response to the comments as appropriate and will submit it formally to Congress.

The focal points of the draft Mission Plan amendment are:

- o Achievements in the first repository program including the nomination and recommendation of sites for detailed site characterization;
- o As a result of reevaluations of the work necessary to proceed, a five-year extension of the schedule for the first repository;
- o New waste-generation data that, along with other considerations, indicate that it is prudent to indefinitely postpone site specific activities for the second repository while continuing technical development activities;
- o Developments concerning the submission to Congress of a proposal for an MRS facility as an integral part of the waste management system; and,

- Actions taken and progress made toward better defining the consultation and cooperation process with eligible States and affected Indian Tribes.

We recognize that there are particular matters of significant Congressional concern, and we hope to receive Congressional direction in these areas.

First Repository

Last May, DOE nominated five sites in Mississippi, Nevada, Texas, Utah and Washington as suitable for characterization and issued Environmental Assessments for each of those sites. The Secretary recommended to the President three of those sites for characterization as candidates for the first repository. The three sites are: the Yucca Mountain site in Nevada, the Deaf Smith County site in Texas and the Hanford site in Washington. The President approved the Secretary's recommendation and that action formally marked the beginning of the site characterization phase.

This represented a major milestone in the siting of the first repository and years of work in gathering and analyzing geologic and environmental data from site studies that began before passage of the NWPA. Reaching this stage of determination permits us to thoroughly investigate, evaluate and compare geologic, environmental, transportation and safety factors at each of the three sites.

Site characterization will take five-to-seven years, depending on the site. It includes laboratory investigations; surface-based data-collection activities, such as geologic mapping and seismic surveys; studies conducted through the drilling of boreholes; and studies conducted in and around the candidate host rock in exploratory-shaft facilities.

Although we had planned to begin exploratory shaft construction at one or two of the sites this fiscal year, Congress, in the appropriation for the waste program for FY 1987, specified that no funds are to be used for drilling any exploratory shaft at any site in FY 1987. However, Congress did allow for site-specific work, other than exploratory shaft drilling, to be conducted at reduced funding levels.

The current activities at or related specifically to each of the candidate sites, include the following:

o At the Nevada site, land access is being pursued with other Federal agencies.

o At the Washington site, site plans are proceeding for hydrology tests that will precede exploratory shaft drilling.

o At the site in Texas, DOE is proceeding with its plans for obtaining access to the land, and later this month, about 10 DOE and contractor personnel from our DOE Columbus, Ohio, Salt Office will be moving to Texas to begin setting up a DOE office. Unlike the Nevada and Washington candidate sites, there has been no DOE office for this program located near the site or in the State.

Two major efforts under the NWPA and associated with the beginning of site characterization are:

1. Negotiations for formal consultation and cooperation; and,
2. The development of site characterization plans.

The NWPA requires DOE to seek to enter into and negotiate written Consultation and Cooperation (C&C) agreements with States and affected Indian Tribes after approval of candidate sites for characterization, or earlier, if an eligible State or Indian Tribe requests. Some negotiations have occurred, but as yet no C&C agreements have been concluded.

Given the nature of the program and the reality that the perspectives of the States and affected Indian Tribes often differ from DOE's, we recognize that C&C agreements may not be easy to reach. We plan to increase our efforts to negotiate C&C agreements. In this regard, we are considering a number of new initiatives to encourage these negotiations. For example, DOE is willing to consider the adoption and implementation of de facto agreements or memoranda of understanding that would contain less than is required to be in the C&C agreements, should the State or affected Indian Tribe find this advantageous. This could allow both parties to adopt agreed-on procedures immediately, even before the C&C agreement is fully developed. Such an approach is attractive because it recognizes the importance and the achievements of the negotiation process that has been under way since the NWPA was signed into law.

But C&C negotiations and agreements are but one part of the process of working with affected parties. Interactions with affected and interested parties occur every day.

In addition, there have been a number of actions outside formal C&C negotiations which have been taken recently as a result of recommendations. For example:

- The participation by States and affected Indian Tribes in DOE coordinating groups; and,
- The expansion of the Quarterly Meetings with States and affected Indian Tribes for the public to attend.

There are currently twelve Coordinating Groups and they are listed in Table 3. The Coordinating Groups meet two-to-four times per year and provide a forum for the discussion of common problems and their resolution. It is expected that additional coordinating groups will be established and existing ones abolished as requirements and priorities change.

Since Summer 1984, Quarterly Meetings have been held with States and affected Indian Tribes to discuss topics mutually agreed upon for the agenda. As a result of recommendations by the States and Indian Tribes, these meetings will now be open to the public. The first such meeting is scheduled for February 12 in Spokane, Washington. The agenda has been coordinated among the States, the Indian Tribes and DOE and a public announcement has been made by DOE Headquarters and the nearest DOE Operations and Project Office in Richland, Washington. The draft Mission Plan amendment will be a major subject for discussion at the meeting.

I mention these activities because I believe it is important to point out that while formal consultation and cooperation negotiations are only required to begin after a candidate repository site is approved for site characterization, consultation and cooperation is an everyday activity and responsibility -- DOE's responsibility, the States' and Indian Tribes' responsibility -- the responsibility of all the affected parties to consult and to cooperate.

TABLE 3.

EXISTING COORDINATING GROUPS

The following coordinating groups are currently in existence and supported by their own charters:

- Site Characterization Plan Coordinating Group
- Geoscience Coordinating Group
- Repository Coordinating Group
- Waste Package Coordinating Group
- Performance Assessment Coordinating Group
- Licensing Coordinating Group
- Quality Assurance Coordinating Group
- Transportation Coordinating Group
- Institutional Affairs Coordinating Group
- Project Management Coordinating Group
- OCRWM Information Resources Management Coordinating Group
- Environmental Coordinating Group

Site Characterization Plans

Another major effort associated with site characterization is the preparation of a plan for characterizing each site. This plan -- called a site characterization plan (SCP) -- is a major and intensive effort. For example, the scope and magnitude of this effort can be gauged from the SCPs now being prepared for publication: in each plan, the description of the characterization program alone covers several thousand pages.

Copies of each draft chapter are being shared with the NRC, States and affected Indian Tribes for comment as they become available. The NWPA requires that such a plan for any candidate site be prepared, made available to the public and that public hearings be held by DOE in the vicinity of a candidate site before proceeding to sink the exploratory shafts at the site.

The SCPs are key documents and of major importance to States, Indian Tribes and the public -- as well as to NRC and to us. These plans will contain:

o A detailed specification of the information to be developed for each site, the conceptual waste package and repository design, and the issues to be addressed;

o Schedules for a logical sequence of testing and the timing for the issuance of publications on technical procedures, technical findings, and issue resolution; and,

o Milestones and decision points to be encountered along the way.

There is intense interest in the SCPs, since the SCPs will guide DOE during the site characterization phase until a license application is submitted to the NRC. The SCPs and periodic progress reports that DOE will be making, will have a crucial role in interactions with the NRC, and as vehicles for presenting information to the States, Indian Tribes, Congress, utilities and the public.

The main purpose of site characterization is to determine whether a candidate site is suitable for a repository and to provide the bases for the selection of a repository site and for the construction authorization and license application request to the NRC -- tasks that have never been done before. Therefore, finding answers to relevant questions are the main focus of site characterization.

First Repository Schedule

The experience gained in achieving the important milestone of approval of sites for characterization, and advances in the technical planning of the program, have led us to reassess the program and schedule for the first repository. The new schedule -- as presented in the draft Mission Plan amendment -- shows a 5-year extension of the date for the waste acceptance at the first repository, from 1998 to 2003.

This 5-year extension of the operation of the first repository is primarily a result of additional time needed in the near term. This is not the first time that we have come to realize that additional time is needed to carry out certain activities required by the NWPA. To better illustrate where additional time has been needed and where we believe it is needed now, Table 4 in my statement shows the current schedule as compared to the schedule contained in the NWPA and in 1985 Mission Plan."

There are several reasons for the near-term extension. Among them are:

- The experience to date that more time has been required to required to involve States and Indian Tribes in review and discussion.
- The recognition that more time should be provided in the future for consultation and interaction with the States, affected Indian Tribes, and other parties; and,
- The recognition that more technical information is needed.

Since passage of the NWPA, many parties have insisted that, given the controversial nature of the program, the schedule specified in the Act was not realistic and not achievable. And on several occasions, the schedule and processes prescribed in the NWPA have been expanded, as shown in Table 4, to provide additional time for input by affected and interested parties, for additional review of DOE actions or documents and for incorporation of comments or resolution of issues.

At my confirmation hearing almost three years ago, I pledged that the schedule would not be allowed to prevail at the expense of technical excellence, safety and public participation. And I continue to maintain that position. I respect the timetables, but where additional time appears to be needed to ensure the quality of the product, as a manager, I must recommend additional time.

TABLE 4.

NUCLEAR WASTE POLICY ACT MILESTONES

COMPARISONS WITH NWPA, JUNE 1985 MISSION PLAN, AND DRAFT AMENDMENT TO THE MISSION PLAN

ACTIVITY	NWPA REQUIREMENT	1985 MISSION PLAN	1987 DRAFT AMENDMENT	ACTUAL
1. Identify States w/ potentially acceptable sites	4/7/83	--	--	2/2/83
2. State/Tribal notification as to being potentially acceptable sites	7/7/83	--	--	2/2/83
3. Issue Siting Guidelines	7/7/83	12/84	--	12/84
4. Issue Mission Plan	5/84	--	--	6/85
5. Issue Environmental Assessments	--	11/85	--	5/86
6. 1st Repository Nomination/Recommendation of sites suitable for characterization	1/1/85	11/85	--	5/86
7. Presidential Approval of sites	--	1/86	--	5/86
8. Seek to enter into C&C agreements	7/86	--	--	7/86 *
9. Issue SCP's	--	3/86 tuff 3/86 basalt 10/86 salt	mid-87 tuff mid-87 basalt 1st Qt.88 salt	-- -- --
10. Initiate Construction of Exploratory Shafts	--	3rd Qt. 86 tuff 3rd Qt. 86 basalt 3rd Qt. 87 salt	2nd Qt. 88 tuff 3rd Qt. 88 basalt 4th Qt. 89 salt	-- -- --

* Informal C&C negotiations were initiated with the State of Washington, and the Yakima and Umatilla Indian Tribes in mid 1983

ACTIVITY	NWPA REQUIREMENT	1985 MISSION PLAN	1987 DRAFT AMENDMENT	ACTUAL
11. Testing to support DEIS complete	--	12/89	1st Qt. 92 tuff 1st Qt. 93 basalt 1st Qt. 93 salt	-- -- --
12. Issue FEIS	--	12/90	4th Qt. 1994	--
13. President recommends site to Congress	3/31/87	3/91	4th Qt. 1994	--
14. Site designation effective	5/91	5/91	1st Qt. 1995	--
15. Submit License Application to NRC	--	5/91	1st Qt. 1995	--
16. NRC issues Construction Authorization	--	8/93	1st Qt. 1998	--
17. Initiate Repository Construction	--	8/93	1st Qt. 1998	--
18. NRC issues License for Phase 1 Operations	--	12/97	1st Qt. 2003	--
19. Phase 1 Repository Operations begins	--	1/98	1st Qt. 2003	--
20. Phase 2 Repository Operations begins	--	2/01	2nd Qt. 2006	--

ACTIVITY	NWPA REQUIREMENT	1985 MISSION PLAN	1987 DRAFT AMENDMENT	ACTUAL
1. 2nd Repository Nomination/Recommendation of sites suitable for characterization	7/1/89	10/91	mid- to late-90s	
2. President recommends 2nd Repository site to Congress	3/31/90	3/98	2010 to 2020	

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1. Submit to Congress report describing R&D activities necessary to develop MRS proposal	7/83			6/83
2. Submit to Congress detailed study on the need for and feasibility of MRS	6/1/85	1/86	As soon as permitted	

We now recognize that more information, more consultation and more time is required in the near-term to ensure development of the first repository for long-term (permanent) disposal. We will remain optimistic in our planning, but realize that for many early actions, we underestimated the time required. Furthermore, DOE recognizes the potential for contingencies that are yet to appear.

The FY 1988 funding estimate for first repository activities is $525 million compared to the FY 1987 appropriation of $307.5 million. This increase is primarily due to exploratory shaft construction which is planned to commence at the Nevada site and at the Washington site in FY 1988.

The FY 1989 budget estimate for first repository activities is $869.6 million and the FY 1990 budget estimate is $829.7 million.

Second Repository

The NWPA authorizes siting of a second repository, but does not authorize its construction.

The FY 1988 funding estimate for non-site-specific second repository activities is $24 million compared to the FY 1987 appropriation of $19.8 million. The estimate for second repository activities remains at $24 million for both FY 1989 and FY 1990.

I would like to point out, again, that we plan to propose construction of a second repository. In fact, even the lowest current projections of spent fuel generation indicate that the second repository will be needed. DOE, therefore, remains fully committed to a two-repository system.

Our current program regarding second repository focuses on technology development. A significant portion of these studies is expected to involve cooperative efforts with other countries through continuation of the current program of international cooperation, such as that with Canada where we are participating with them in the extension of the depth of the shaft at their Underground Research Laboratory in Manitoba near Winnipeg.

A requirement related to the second repository is stated in the NWPA in terms of the maximum amount of spent fuel that the NRC can allow to be emplaced in the first repository until a second repository is in operation. The NWPA sets this figure at 70,000 metric tons of uranium.

Under the revised schedule for the first repository, this limit would be reached sometime after the year 2025 if the maximum annual rate of waste emplacement is 3,000 metric tons. DOE believes the actual schedule for consideration of the second repository should be based on more-refined estimates of spent fuel generation rates, the time needed for the first repository to reach the limit of 70,000 metric tons and the time needed to develop the second repository.

The experience in siting the first repository suggests that site-specific screening leading to the identification of potentially acceptable sites should start about 25 years before the start of waste acceptance for disposal. Therefore, to have the second repository available by about 2025, site specific studies need not start until the middle to late 1990s.

For the second repository, DOE may consider sites identified as potentially acceptable but not nominated for the first repository, sites found potentially acceptable from rock formations not previously studied in the first repository selection process and sites characterized but not chosen for the first repository site.

A rock type not previously studied in the first repository selection process has been crystalline rock. Following national surveys, DOE identified 235 crystalline rockbodies in 17 States in three regions -- the North Central, the Northeast and the Southeast parts of the country.

In the "regional phase" of investigation, DOE collected and assessed publicly available geologic and environmental data, reviewed these data with the States and prepared Regional Environmental and Geologic Characterization Reports for each of the three Regions. In addition, through workshops and other interactions with the crystalline States, DOE prepared a Region-to-Area Screening Methodology to be used for narrowing down the 235 rockbodies to a small number of areas preferred for further study.

On January 16, 1986, following application of the Screening Methodology to the data contained in the Regional Characterization Reports, we issued for public comment a Draft Area Recommendation Report (ARR).

Based on the Secretary's announcement in May 1986 to postpone indefinitely site-specific work for a second repository until the mid- to late-1990s, DOE is now cataloging the more than 60,000 comments received on the Draft ARR. Based on the schedule represented in the draft amendment to the Mission Plan and approval of DOE's plans presented therein, DOE plans to begin with national surveys when site-specific efforts are later considered.

Monitored Retrievable Storage

The FY 1988 funding estimate assumes the Congress will allow DOE to proceed with activities that are critical to deployment of an MRS facility. With this in mind, the FY 1988 estimate for MRS activities is $58 million compared to the FY 1987 budget appropriation of $20 million. These funds would be used primarily for site data collection and analysis, final design of the facility itself, regulatory compliance studies and State liaison activities. The schedule for construction of the MRS allows about ten years from the time Congress approves our proceeding, to the start up of operations. The FY 1989 estimate is $66 million and the FY 1990 estimate is $68 million.

The NWPA (Section 141) directs DOE to complete a study of the need for and feasibility of an MRS, and to submit to the Congress a proposal for the construction of one or more MRS facililties. The NWPA specifies that the proposal include a program for siting, development, construction and operation of an MRS facility; site specific designs and cost estimates for the construction of such a facility, should Congress approve its construction; a plan for funding the construction and operation of such a facility; and a plan for integrating such a facility into the overall Federal waste management system.

In spring of 1985, DOE completed a preliminary analysis of the need for and feasibility of an MRS facility and announced our conclusion that such a facility could serve as an integral and important part of the overall waste disposal system. With approval of Congress, we reprogrammed funds to allow us to prepare the full MRS proposal. We identified a preferred site and two alternative sites, as required by the NWPA. In addition, we completed the need and feasibility studies verifying our tentative conclusions. We paid special attention to evaluating the no-MRS case.

We worked closely with the State in our development of the proposal to Congress. This interaction has principally been through the Governor's Safe Growth Council. To support their review of the proposal, we provided a grant of $1.4 million. The State in turn provided $100,000 each to two local community groups to study the MRS proposal.

The Clinch River MRS Task Force completed their review in October 1985 and issued a report entitled "Recommendations on the Proposed Monitored Retrievable Storage Facility." In their report, the Task Force concluded that an MRS could be safely constructed and operated. In addition, Task Force members from the City of Oak Ridge and from Roane County passed resolutions stating that an MRS facility would be acceptable if certain conditions were met. In our proposal to Congress, which we hope to be permitted by the courts to submit soon, we have attempted to meet those conditions.

In mid-December 1985, and as required by the NWPA, we submitted to the NRC and to the Environmental Protection Agency

(EPA) review copies of the Proposal to Congress, the Environmental Assessment on the MRS and an MRS Program Plan. At the same time, we provided copies to the State.

In January, 1986, the Governor met with the Secretary of Energy and me to present the State's position on our proposal to construct an MRS at the Clinch River site. We were disappointed that the then Governor did not share our view of the need for and value of an MRS. We are pleased that he, like the Clinch River MRS Task Force, shared our view that such a facility could be constructed and operated safely and is not a substitute for a permanent repository.

When we are permitted to submit the proposal to Congress, it will be accompanied by NRC comments and EPA comments as well as the State and local community group comments.

In our proposal, we will recommend that Congress:

- Approve the construction of an MRS facility at a specific site;
- Limit the storage capacity at the MRS facility to 15,000 metric tons of spent fuel;
- Preclude waste acceptance by the MRS facility until a construction authorization for the first repository is received from the NRC;
- Direct DOE to implement measures responsive to the concerns and recommendations of the State and local governments; and,
- Direct DOE to implement the program plan accompanying the proposal.

Our intent regarding MRS is to fulfill our statutory obligations under the Act and submit the proposal on MRS to the Congress at the earliest date practicable.

In accordance with other provisions of the NWPA, should Congress approve proceeding with an MRS facility, we are committed to seeking immediately to enter into a formal Consultation and Cooperation Agreement with the host State.

Nuclear Waste Fund

In April 1983, DOE adopted a fee of one mill (one-tenth of a cent) per kilowatt hour charged to utilities for all nuclear-generated electricity beginning April 7, 1983, as specified in the NWPA. Revenues collected from the on-going fee by DOE through December 31, 1986, total approximately $1.3 billion.

In addition to spent fuel generated since April 7, 1983, spent fuel or high-level waste generated prior to that date is subject to a fee equivalent to an average charge of one mill per kilowatt hour. Utilities had until June 1985 to decide on one of three payment options. Those who chose to pay in one lump sum by June 1985, to save interest charges, made payments totalling more than $1.4 billion. This represents more than half of the one-time fee liability of $2.3 billion for civilian nuclear waste in existence prior to April 7, 1983. Following receipt of these monies, DOE reimbursed the U.S. Treasury approximately $265 million, the total amount owed on the appropriated debt transferred to the Nuclear Waste Fund upon enactment of the NWPA.

In April 1985, the President accepted DOE's recommendation to dispose of defense waste in a commercial repository. The

Federal Government, therefore, will pay an equivalent fee to that paid by utilities. This use of the repository will generate additional revenue for the Fund. The amount of the additional revenue is presently being determined and, therefore, is not included in our revenue estimates.

In early December 1986, we issued in the Federal Register a Notice of Inquiry describing three methodologies for the determination of equitable payments into the Waste Fund by the Department of Energy's Office of Defense Programs. The 60-day comment period ended February 2. We have received comments from about a dozen responders including public utility commissions, utilities and a state nuclear waste board.

The revenue projections based on the one mill per kilowatt hour fee are shown in Table 5.

TABLE 5

NUCLEAR WASTE FUND REVENUE PROJECTIONS
($ in millions)

FY 1983 (actual)	$ 73.6
FY 1984 (actual)	329.5
FY 1985 (actual):	
-One mil/KWh	367.3
-One-time fee	1,427.4
-Interest Earned	32.7
FY 1986 (actual):	
-One mil/KWh	362.3
-One-time fee	5.5
-Interest Earned	146.0
FY 1987:	
- One mil/KWh	434.6 a/
- One-time fee	6.0
- Interest Earned	133.5 b/
FY 1988	
-One mil/KWh	481.3 a/
-One-time fee	31.2
-Interest Earned	136.3 b/
FY 1989	
-One mil/KWh	507.4 a/
-One-time fee	39.6
-Interest Earned	126.1 b/
FY 1990	
-One mil/KWh	534.1 a/
-One-time fee	39.6
-Interest Earned	111.6 b/

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a/ Based on projected net nuclear electricity generation as a result of the recent Wisconsin court decision. (Wisconsin Electric Power Company, et al vs. Hodel, 84-8571 (decided December 6, 1985)).

b/ Based on projected average yield of Treasury security portfolio.

Transportation and Systems Integration

The FY 1988 funding estimate for activities associated with Transportation and Systems Integration is $63 million. The FY 1989 estimate is $79.9 million; and the FY 1990 estimate is $78.7 million.

The FY 1988 major activities include fabrication and testing of prototype casks for truck, rail and barge transports and public review of designs; and fabrication and testing of prototypical rod consolidation hardware. Work will be continued to support institutional programs including national and regional workshop completion and publication of a comprehensive transportation plan and issue resolution.

In addition, systems integrations activities include systems analysis and engineering development to ensure that the waste system components are fully integrated into an efficient, safe and timely waste management system and to develop equipment to consolidate spent fuel assemblies on a production-line basis to adequately meet requirements of receiving facilities.

Program Management and Technical Support

The FY 1988 budget request for program management and technical support is $54.9 million. The FY 1989 estimate is $62.2 million; and the FY 1990 estimate is $63.3 million.

The FY 1988 funding estimate of $54.9 million provides technical support for waste management activities including (a) technical support integration, (b) development of standard materials characterization methods by the Material

Characterization Center, and (c) supporting studies including fund management activities.

This funding level provides for a staffing level of 357 full-time equivalent (FTE) positions at headquarters and in the Operations Offices for fund management, site investigation, technology development and institutional liaison associated with the technical management of the repository, MRS (if approved), supporting programs and the management of the Nuclear Waste Fund. This is an increase over the FY 1987 level of 311, due primarily to site characterization activities. Increases in FTE levels would principally occur in the field offices.

The FY 1989 and FY 1990 estimates of $62.2 million and $63.3 million, respectively, will provide for program management and technical support associated with site characterization activities at all three candidate repository sites and increasing effort in transportation systems development. Major emphasis will continue on developing an integrated cost-effective waste disposal system providing full protection of public health and safety and the environment.

CIVILIAN RADIOACTIVE WASTE R&D PROGRAM

Development and demonstration activities under the Civilian Radioactive Waste R&D Program are funded from the General Fund rather than funds collected from the utilities and deposited into the Nuclear Waste Fund.

The FY 1988 budget request for the Civilian Radioactive Waste R&D activities is $5 million compared to $6.5 million in FY 1987.

DOE's Civilian Radioactive Waste R&D program efforts are to utilize all means directed or available through the Act or other authority to encourage and expedite the availability of licensed new at-reactor storage technologies.

Spent Fuel Storage R&D

DOE's spent fuel storage development program is intended to encourage and expedite the most efficient use of existing storage facilities and the addition of new, licensed capacity in a timely fashion. In FY 1986, as a result of cooperative agreements between DOE and utilities, two independent spent fuel storage installations were licensed by NRC. These demonstrations will be completed in FY 1988. In addition, another rod consolidation demonstration of spent fuel as part of a cooperative agreement with Northeast Utilities Services Company will be completed. We plan to continue cooperative activities in information exchange regarding spent fuel storage and disposal with non-nuclear weapon states and to continue to participate in international activities with the International Atomic Energy Agency, the Nuclear Energy Agency and the Federal Republic of Germany.

Program Direction

The FY 1988 budget request for program direction is $.2 million. At this level, three full-time equivalents would be funded to manage the Civilian Radioactive Waste R&D programs. Included are administrative and technical personnel who manage a broad range of activities such as: research, development, demonstration, industrial involvement and international programs.

Conclusion

In summary, the FY 1988 programs described in this statement are designed in an efficient and effective manner to achieve the national mandate of the NWPA to develop a comprehensive and functional waste disposal system for spent fuel and high-level waste.

This concludes my remarks in support of the FY 1988 Nuclear Waste Fund and R&D programs. I shall be pleased to answer your questions at this time.

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Federal Emergency Management Agency
Washington, D.C. 20472

F 26

The Honorable Quentin N. Burdick
Chairman
Committee on Environment and
Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your request co-signed by The Honorable Robert T. Stafford regarding the Federal Emergency Management Agency's programs within the Committee's jurisdiction, enclosed is information pertaining to the Disaster Assistance Program and the Dam Safety Program. The latter program is analyzed in light of the Water Resources Law, P.L. 99-662.

If you need any additional information please let me know, or you may have a member of your staff contact my Office of Congressional Relations at (202) 646-4500.

Sincerely,

Julius W. Becton, Jr.
Director

Enclosures

FEDERAL EMERGENCY MANAGEMENT AGENCY

DISASTER RELIEF
ACTIVITY OVERVIEW

FY 1988 Proposed Funding:

An appropriation request of $125 million is being submitted for 1988 to fund program activities authorized under P.L. 93-288 as amended, the Disaster Relief Act (referred to hereafter as the Act). This assumes an additional $104 million carried forward as an unobligated balance from the prior year, and $20 million in recovery of prior year obligations; for total obligation authority of $249 million.

The request level assumes a reduction of $20 million in program obligations and a relatively normal year of disaster activity, for total obligations estimated at $230 million. The reduction will come from changes to programs and program administration. Per Congressional direction FEMA is pursuing program changes with State and local officials that will achieve the goal of reduced obligations from the Fund as part of overall Federal Government budget reduction initiatives while at the same time maintaining required levels of support for State and local needs. As measures are identified through that joint process, changes to regulations or legislation will be proposed to implement the specific agreements that are reached.

In addition, FEMA requests $9.923 million and 217 FTE under Salaries and Expenses appropriations. This is a decrease of 16 FTE and an increase of $552,000 over 1987 to accommodate within-grade increases, the January 1987 pay raise, and required retirement contributions.

FEMA's FY 1987 Appropriation:

FEMA requested $100 million and Congress appropriated $120 million based upon projections of available carryover, recovery of prior year obligations, and average levels of program activity.

FY 1988 Program Changes and New Initiatives:

FEMA intends to limit the budget requirements associated with Disaster Assistance through measures that are in the process of being identified during 1987 with the cooperation of State and local officials. Other improvements to program administration are noted in the following sections according to program area.

Management and Coordination:

The final volume of the Disaster Operations Manual (DOM) will be published. Enhancements to DAP computer systems will be implemented that will further increase the usefulness of these systems both in supporting field operations and in the long term management and tracking of program activity. The first phases of these systems that have been implemented have already begun to bring about major improvements in the timeliness of delivering assistance to applicants, and better program management tracking.

Individual Assistance:

Major increases in program delivery efficiency have been achieved through the implementation of combined verification procedures supported with new automated system functions. During 1987 preparations are being made to provide for the direct issuance of checks in the field to applicants for Temporary Housing which will significantly improve the timeliness of payments. FEMA will be developing a technical assistance package for emergency mental health operations as part of State emergency plans. Field operations will be further enhanced through management improvements to mobile home operations, improving and expanding information on preliminary damage assessment with a goal of developing more precise estimating methodologies.

Unanticipated program cost increases will be realized in the Disaster Unemployment Assistance Program (DUA). The implementation and administration of the DUA program has been delegated to the Department of Labor since the program was first authorized by the Act. Based on a review of the impact of recent disasters on the farm community, the Secretary of Labor has exercised his authority to consider diversified farmers eligible for DUA payments. DUA had previously been denied to farmers who lost all crops but were diversified, through income from livestock or poultry. The DUA changes are expected to result in an additional $3 - 6 million annual expenditure from the President's Fund

Public Assistance:

Revisions will be made to program administration procedures, guidance and regulations as required to implement identified program changes. Further efforts will be made to increase insurance coverage that has the potential to reduce future obligations under major disasters.

Hazard Mitigation:

FEMA intends to increase the number of States with State level multi-hazard mitigation plans, thereby increasing overall preparedness and limiting subsequent post-disaster planning requirements. Also, the use of new automated data-base processing functions will improve FEMA's ability to measure the cost-effectiveness of hazard mitigation measures and develop policy recommendations that will have the potential to reduce long term Federal obligations.

FY 1988 Anticipated Recision and/or Deferrals: None

Economic Assumptions and Spendout Rate:

FEMA is projecting outlays of approximately $312 million for 1987 and $225 million for 1988.

All estimates for the Disaster Relief Fund are based on historical activity. As such the estimates are expressed in constant dollars. By budget convention, no economic factors are used in arriving at these figures.

Outyear Projections:

Funding levels: FEMA is currently forecasting future budget requests of approximately $230 million annually.

Program costs are a function of the number, frequency and magnitude of disasters occurring in a given year. There will be continuing and expanded activity in hazard mitigation as FEMA works toward reducing disaster damage and losses. Concurrently, FEMA will attempt both to improve the efficiency of providing assistance, while at the same time implementing changes to limit average annual obligations.

Reductions associated with proposed legislation and rulemaking:

Approximately $20 million has been identified as the goal for reductions below a base of $250 million in obligations under Disaster Assistance Programs. The precise measures that will achieve that goal are in the process of being identified in conjunction with State and local officials.

Disaster Relief Appropriation
FY 1986 - FY 1987

FY 1985 Unobligated balance carried forward	$268,348,000
FY 1986 Appropriation	95,700,000
FY 1986 Supplemental (July 86)	250,000,000
Recovery of prior year obligations	67,962,000
Total FY 1986 Obligation Authority	$682,010,000
FY 1986 Obligations	$497,734,000
FY 1986 Unobligated balance carried forward	184,276,000
FY 1987 Appropriation	120,000,000
Estimated recovery of prior year obligations	50,000,000
Total FY 1987 Obligation Authority	$354,265,000
Obligations through December 31, 1986	-95,718,000
Transfer to Emergency Food & Shelter	-50,000,000
Balance FY 1987 obligation authority	$208,558,000

SALARIES AND EXPENSES

DISASTER RELIEF ADMINISTRATION

FISCAL YEAR	FTE WORK YEARS	APPROPRIATIONS REQUEST	AVERAGE GRADE	AVERAGE SALARY
1986 Actual	144	6,441,000	12	38,541
1987	144	6,587,000		
Current Est	233	9,371,000	11	33,691
1988	217	9,923,000	11	37,631

REQUESTS FOR FEDERAL DISASTER ASSISTANCE UNDER PL 93-288

April 1, 1974 to September 30, 1986

	Requested by the States	Declared Maj.Dis.	Declared Emerg.	Fire Sup. Grants	Denials	Amend
Maj. Dis:	614	357	17	- 0 -	242	3
Emerg:	132	- 0 -	74	- 0 -	57	1
Fire Sup. Grants	81	- 0 -	- 0 -	41	40	-0-
TOTALS:	827	357	91	41	339	4

COMMENTS: Of the 614 requests for major disaster declarations, resulted in a major disaster being declared.

If the requests for major disasters and emergencies are combined, there were 746 requests and 448 declaration -- thus 60 percent of the States' requests resulted in a Presidential declaration.

Major Disaster Declarations Made Under PL 93-288

April 1, 1974 to September 30, 1986

	NUMBER	PERCENT
Severe Storms and Flooding	217	61
Tornadoes	47	13
Tornadoes and Flooding	27	8
Hurricanes and Typhoons	31	9
Severe Winter Weather	17	4
Levee or Dam Failure	3	1
Earthquake	4	1
Volcanic Eruption	2	1/
Timber Fire	3	1/
Urban Fire	2	1/
Drought	1	2/
Landslide	2	2/
Sewer Explosion	1	2/
TOTAL	357	100%

1/ Combined total of 2%

2/ Combined total of 1%

DISASTER FUND
($000)

Fiscal Year	Request	Supplemental Request	Appropriation	Obligations	Carryover 1/
1974	100,000	300,000	432,600	374,827	196,360
1975	100,000	32,000 100,000	200,000	192,020	204,340
1976	150,000	-0-	150,000	242,725	111,615
Trans Qtr	37,500	-0-	37,500	83,301	65,814
1977	100,000	200,000	300,000	363,695	4,165
1978	150,000	150,000	440,716	442,947	6,280
1979	200,000	150,000 200,000	386,772	373,365	19,687
1980	193,600	870,000	1,063,600	849,095	234,192
1981	375,570	-0-	358,449	228,964	363,677
1982	400,000	-0-	301,694	115,114	527,984
1983	325,000	-0-	130,000	245,231	593,494
1984	-0-	-0-	-0-	296,420	386,494
1985	100,000	-0-	100,000	319,172	352,260
1986	194,000	250,000	345,700	497,734	184,276
1987	100,000	-0-	120,000	250,000	
1988	125,000				
SUBTOTALS 1981-1986			1,355,843	1,952,635	2,512,461
AVERAGES 1981-1986			193,692	278,948	358,923
TOTAL			4,367,031	4,874,610	3,354,914
AVERAGES			291,135	324,974	223,661

1/ Includes any additional recovery of prior year obligations.

Water Resources Law - PL 99-662
Dam Safety

P.L. 99-662 authorizes the Secretary of the Army, through the Corps of Engineers (Corps), to undertake several activities supportive of the safety of the Nation's dams. This law, should funds be appropriated to implement it, compliments the current scope of FEMA's Dam Safety Program. Specific comments, with respect to the pertinent provisions of P.L. 99-662, follow:

Distribution of $13M in Direct Support of State Dam Safety Programs: Direct Federal funding of State dam safety programs, managed by the Corps through 1980, had been ineffective in creating and maintaining such programs. For this reason, FEMA's Dam Safety Program relies on the provision of public awareness and technical assistance materials to encourage the States to develop and maintain dam safety programs. In the past year, the latter has been effective in strengthening or initiating action to develop several State programs. Funding of this portion of the law will again make States dependent on Federal funding and reduce State initiative to fully fund a competent program at the end of the funding period (5 years). A repeat decline in State programs can then be expected. Nevertheless, this provision of the law does not interfere with FEMA's ongoing Dam Safety Program.

Creation of Federal Dam Safety Review Committee (FDSRC): Whether funds for other Sections are appropriated, there needs to be a formal method for assessing the adequacy of the State programs for dam safety. FEMA has been doing this since 1982. Creation of the FDSRC along the lines of the Interagency Committee on Dam Safety (ICODS) under FEMA would provide a basis for periodic assessment of the state of the Nation's Dams while providing a basis for appraisal of individual State and Federal agency programs.

Provide $500K for Maintenance of an Inventory of Dams: The current inventory was completed in 1980 and is out of date. FEMA has been supporting the Association of State Dam Safety Officials (ASDSO) to develop an inventory at the State level that can be aggregated nationally. Funding support by the Corps for the State-level effort will enhance the effort.

Provide Funding to NBS for Dam Safety Instrumentation Research: The selection of final research projects should be coordinated through the ICODS Research Subcommittee to ensure the effort is supportive of defined dam safety research needs.

Provide Funding for Training for State Dam Safety Officials: ICODS has funded development of a training program which will provide necessary training for Federal and non-Federal dam safety officials. Therefore, Corps funding of this effort should be directed to distribution of this developing training program to the States and not to independent training program development.

General Services Administration
Washington, DC 20405

February 13, 1987

Dear Mr. Chairman:

In response to your letter of January 28, 1987, enclosed you will find Administrator Terence Golden's written testimony on the General Services Administration's 1988 budget request. In addition to the areas of interest outlined in your letter, the testimony covers the entire spectrum of GSA activities. We hope it is useful in the preparation of the Committee's Budget Report and stand ready to address any questions or concerns that you or your staff may have.

Sincerely,

George L. Hooper
for Harold H. Griffin
Associate Administrator
for Congressional Affairs

The Honorable
Quentin N. Burdick
Chairman
Committee on Environment
and Public Works
United States Senate
Washington, DC 20510-6175

Enclosure

WRITTEN STATEMENT, GENERAL SERVICES ADMINISTRATION
BEFORE THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

Mr. Chairman and Members of the Committee:

I am pleased to offer this testimony in support of the fiscal year 1988 budget for the General Services Administration (GSA).

GSA's fundamental purposes are to serve as the Federal Government's administrative policy unit and to provide centralized services only where there are significant economic or quality advantages to having GSA perform the function. Our activities are numerous and diverse. We help manage and oversee the government's telecommunications and ADP programs. We regulate and provide goods and services to Federal Departments and Agencies. We manage a significant portion of the Government's real estate holdings with the goal of providing quality, economical space for Federal employees. GSA is responsible for the disposal of surplus property, treating it as an asset to be managed as in the private sector. We also manage the Government's stockpile operations, including the acquisition and storage of critical materials as well as the disposal of excess materials. Finally, we help set acquisition policy for the Federal Government.

To put our request in perspective, GSA's total obligations will be approximately $7.7 billion in fiscal year 1988. Most of our operations are funded by customers through payments for goods and services procured under GSA's revolving funds, by rental payments for space occupied in GSA-controlled buildings, or by direct reimbursement for services.

The Fiscal Year 1988 Budget reflects the following major goals and objectives:

1. Continue to Streamline the Agency
2. Provide a Quality Workplace for Federal Employees, Consolidate Agencies, and Reduce Space
3. Own Space Where Economical
4. Address Health and Safety Issues in Federal Buildings
5. Complete Delegations of Buildings Management to Agencies
6. Streamline Federal Supply System
7. Improve Quality and Reduce Costs for Goods and Services Procured
8. Modernize Government's Telecommunications System (FTS)
9. Help Modernize ADP Systems; Reduce Acquisition Time
10. Increase Disposal of Surplus Federal Property

We will continue to streamline the Agency, thereby providing the most effective and efficient service to our clients and the

American taxpayer. Our planned total employment level by the end of fiscal year 1988 will be less than 21,000, a reduction of more than 20 percent over a 3-year period.

We have achieved significant reductions by improving management, providing industrial funding under proposed legislation for the Federal Supply Service, and operating stockpile management under the Stockpile Transaction Fund. The budget reflects the savings that we have accomplished from streamlining efforts over the last 18 months, including:

-- reducing management layering and duplication throughout the Agency, including the consolidation of certain management functions from three GSA regions;
-- consolidating from five to two finance offices;
-- reducing supply depots from nine to five;
-- consolidating from nine to five zones in the Information Resources Management Service; and
-- streamlining headquarters operations, including reducing certain staff support functions in headquarters by 33%.

Federal Buildings Fund

Turning to programs of particular interest to this Committee, our budget requests $2.935 billion in new obligational authority for the Federal Buildings Fund. This represents an increase of $486.8 million above new obligational authority for fiscal year 1987.

A major priority in this budget is to move toward the ownership of space where economically advantageous to the Federal Government. Our request includes a major project in Oakland, California, where the city of Oakland has agreed to give land to the Federal Government, erect a facility on the site, and lease back the facility to the Federal Government over a 30-year period. At the end of the lease, the Federal Government will own the facility. We estimate present value savings from this transaction, when compared to leasing, of approximately $100 million over 30 years.

To increase ownership where economical and reduce GSA's large rental bill, we have budgeted $150 million for building purchases. We have used the building purchase program to acquire a single facility that meets the Government's requirements and thereby avoid rental payments. We have also used this program as leverage to accomplish major agency consolidations by purchasing an initial facility, and simultaneously acquiring options to enter into long-term leases for additional adjacent space over subsequent years. Purchase options are included in these long-term leases. Through this mechanism we are able to consolidate agencies and thereby enable them to achieve significant cost savings and management efficiencies. Over the last 18 months, we have purchased buildings in Miami, Atlanta, and Washington, D.C. In fiscal year 1988 we anticipate continuing this high prority program, focusing on cities and surrounding areas where large Federal populations are now housed in leased space.

The Fiscal Year 1988 budget includes $443.9 million for repairs and alterations, an increase of $174 million above the amount authorized in Fiscal Year 1987. Within this category we have targeted $94.3 million for health and safety programs and an additional $26.7 million for elevator modernization and repair. Health and safety efforts include the second phase of a 3-year program to remove polychlorinated byphenal (PCB) transformers. Other priorities are to undertake asbestos abatement projects and address fire safety deficiencies within Federal facilities. As the Committee is aware, we recently revised regulations concerning smoking in Federal facilities in order to enhance conditions for Federal workers and visitors.

Another priority within the budget for repairs and alterations is to recapture vacant space. We have identified 14 projects where we have the opportunity to modify space and occupy it with tenants currently housed in leased space. These modifications will result in significant savings to taxpayers. Further, our budget devotes resources to the modernization of existing facilities in GSA's inventory. The backlog in this area is considerable, and inventory modernization is a business practice undamental to sound real estate management.

W have undertaken a major effort to provide a quality work space onment for Federal employees while reducing the total amount space used by the Federal government. Through the judicious use of systems furniture and modern facilities, we anticipate being able to reduce Federal space requirements over the long-term by approximately 20 million square feet. Such a reduction will produce annual savings in excess of $300 million. Providing modern buildings that are convenient to transportation and include day care and physical fitness facilities, will enhance the productivity of the Federal work force.

The budget for the Federal Buildings Fund reflects plans to accomplish the delegation of day-to-day buildings and lease management functions to our tenant agencies. We began this program in fiscal year 1986 and anticipate completing it by the end of fiscal year 1987. This program will produce better managed facilities throughout the Federal inventory, thereby enabling GSA to concentrate its efforts on overall asset management. Under the fiscal year 1988 budget, agencies will continue to pay their rental charges to GSA through the Federal Buildings Fund. In turn, GSA will transfer to agencies amounts for appropriate expenses incurred for delegated functions.

Other activities requested under the Federal Buildings Fund for fiscal year 1988 include: $1.193 billion for rental payments, where the roll-over of long-term leases has resulted in escalating costs; $115 million for design and construction services, including where we must plan in advance for certain projects to assure their timely accomplishment; $133 million for purchase contract payments, which are necessary to meet obligations incurred under that program in prior years; $845 million for real property operations, which cover day-to-day maintenance and operating costs for GSA-controlled facilities as well as the significant law enforcement activities of the Federal Protective Service; and $48 million for program direction, where we fund overall program management and a number of centralized support services.

In summary, we believe that the anticipated revenues in the Federal Buildings Fund for fiscal year 1988 are adequate. Given the requirements placed upon the Fund, the Administration supports charging full market rates for space occupied by agencies. We oppose any efforts to place arbitrary restrictions on the amount of revenues available within the Fund.

With respect to staffing for the Public Buildings Service, our budget includes 11,007 total full-time equivalent positions, of which 9,748 are direct and 1,259 are reimbursable. This request represents a net reduction of 443 positions below comparable 1987 levels. The decrease primarily reflects savings from expanded use of private contractors, improved work methods, and other productivity improvements. We will achieve this level of personnel savings only if current appropriation language placing constraints on contracting certain positions--guards, elevator operators, messengers, and custodians--is removed.

Concerning legislation, we have forwarded to the Congress a prospectus package to implement the construction and repair and alteration projects in this budget. We also intend to transmit to the Congress several proposed legislative changes that will improve the management of public facilities. These changes are under review within the Administration. They support the broad purposes of the budget. However, enactment of these particular changes are not a prerequisite to implementation of the fiscal year 1988 budget for the Public Buildings Service.

For the Committee's information, however, the fiscal year 1988 budget request for the Federal Supply Service proposes to convert funding from direct appropriations to recoveries from Agencies through the General Supply Fund. This "industrial funding" system, for which we will submit legislation to the Congress, will require Agencies to budget for the full cost of their operations. GSA's facilities and services will be used only to the extent that they are cost effective. This will enable the Federal Supply Service to operate according to the marketplace.

We believe that revising the funding procedure for the Supply Service will benefit Federal agencies. Under the present arrangement of direct appropriations for some functions and reimbursement for others, we are frequently unable to respond to agencies' requirements. There is insufficient coordination between the agencies' budgets for goods and services and GSA's budget to deliver those items. Under a full cost recovery system, the Supply Service will expand, or contract, with agencies' requirements.

Operating the Supply Service through industrial funding is consistent with practices for the majority of GSA's activities. Public buildings activities, certain information resources functions, and transportation programs are all funded today from appropriations available to Agencies. Indeed, GSA's basic function, to provide centralized services where cost effective, suggests that the overwhelming majority of our activities should be funded by the customer.

With this change in funding under proposed legislation, the total operating budget request for the General Services Administration will be reduced by $169.2 million. This reflects a reduction of $176.7 million through eliminating the direct appropriation for the Supply Service, offset by $7.5 million for transportation costs that will now be funded from overcharge collections under permanent appropriations.

The Committee should also note that the Administration's Fiscal Year 1980 budget projects receipts of $400 million from the disposal of real property. This represents an increase of about 300 percent above existing levels. We intend to treat real property as an asset to be managed as in the private sector.

To help achieve this goal, our budget request for the Federal Property Resources Service includes a new program of $47 million to relocate agencies from underutilized properties to more suitable sites. In the past we have experienced difficulties where Agencies agree that a certain property should be excessed, but have insufficient funds to relocate operations. This request will assist Agencies to relocate. We will target the resources on high value excess properties.

Concerning management, we are taking a number of steps to enhance the capabilities of the Agency to meet its obligations over the long-term. We've started an ambitious personnel program that includes the rotation of senior and mid-level personnel between regional offices and headquarters, enhanced training opportunities to meet the changing requirements of operations, initiated the development of performance and qualifications standards, focused on career development, and strengthened the recruitment of highly qualified individuals at entry level positions.

That summarizes the major proposals in the fiscal year 1988 budget. We are not now requesting any supplemental appropriations in fiscal year 1987 and are absorbing the increased costs of pay raises and retirement contributions. The budget does not propose any rescissions or deferrals. We are requesting $61.9 million in new obligational authority in fiscal year 1987 to cover rental costs. Enactment of this additional obligational authority is essential to program delivery in Fiscal Year 1987.

Funding from agencies, provided in part by the Continuing Resolution for fiscal year 1987, is available within the Federal Buildings Fund for this activity.

Mr. Chairman, that concludes my written statement. We will be glad to answer any questions that the Committee may have after reviewing the budget.

STATEMENT OF MANUS J. FISH, JR., REGIONAL DIRECTOR, NATIONAL PARK SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS TO DISCUSS THE FISCAL YEAR 1988 BUDGET REQUEST FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS.

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM PLEASED TO APPEAR BEFORE THIS COMMITTEE TO DISCUSS THE FISCAL YEAR 1988 BUDGET REQUEST FOR THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS.

UNDER SUBSECTION (e) OF SECTION 6 OF THE JOHN F. KENNEDY CENTER ACT (72 STAT. 1698, 1699; 20 U.S.C. 76h, 76 l), THE SECRETARY OF THE INTERIOR IS REQUIRED TO PROVIDE ALL SERVICES NECESSARY TO THE NONPERFORMING ARTS FUNCTIONS OF THE JOHN F. KENNEDY CENTER FOR THE PERFORMING ARTS, INCLUDING INFORMATION, INTERPRETATION, JANITORIAL, MAINTENANCE, AND SECURITY SERVICES. THE SAME PROVISION ORIGINALLY AUTHORIZED FUNDS TO SUPPORT SUCH SERVICES THROUGH JUNE 1973. CONGRESS HAS PERIODICALLY EXTENDED THE AUTHORITY OF THE 1972 AMENDMENTS. $4,771,000 WAS APPROPRIATED FOR FISCAL YEAR 1987 FOR THE NONPERFORMING ARTS FUNCTION OF THE JOHN F. KENNEDY CENTER UNDER THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATION ACT, 1987, APPROVED OCTOBER 30, 1986 (PUBLIC LAW 99-591).

THE PRESIDENT'S 1988 BUDGET REQUEST OF $4,920,000 FOR THE KENNEDY CENTER REPRESENTS AN INCREASE OF $149,000 OVER THE FY 1987 APPROPRIATION, REPRESENTING OUR CONTRIBUTIONS OF $110,000 FOR THE NEW FEDERAL EMPLOYEES' RETIREMENT SYSTEM (FERS) (PUBLIC LAW 99-335), AND INCREASED PAY COSTS, INCLUDING COSTS RELATED TO THE EFFECT OF THE PAY RAISE, $39,000. THERE ARE NO PROPOSED PERSONNEL INCREASES OR DECREASES IN THE FISCAL YEAR 1988 BUDGET AND NO PROPOSED RESCISSIONS, DEFERRALS OR SUPPLEMENTALS RELATED TO THE KENNEDY CENTER FOR FISCAL YEAR 1987.

THE SERVICE STRONGLY RECOMMENDS THE APPROVAL OF THE AUTHORIZATION AND APPROPRIATION OF THIS BUDGET REQUEST TO ENABLE THE NATIONAL PARK SERVICE TO CONTINUE TO CARRY OUT ITS RESPONSIBILITIES FOR THE NONPERFORMING ARTS FUNCTIONS FOR THE KENNEDY CENTER. PROPOSED AUTHORIZING LEGISLATION IS BEING PREPARED BY THE DEPARTMENT OF THE INTERIOR AND WILL BE FORWARDED TO THE CONGRESS SHORTLY. AUTHORIZING LEGISLATION IS REQUIRED TO AMEND THE APPROPRIATION AUTHORIZATION IN SUBSECTION (e) IN ORDER TO PROVIDE $4,920,000 FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1988, AND SUCH SUMS AS ARE NECESSARY FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1989.

MR. CHAIRMAN, I WILL TRY TO ANSWER ANY QUESTIONS YOU AND ANY OTHER MEMBERS MAY HAVE.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20590

OFFICE OF
THE ADMINISTRATOR

February 17, 1987
IN REPLY REFER TO:
HCC-10

The Honorable Quentin N. Burdick
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This is in response to your letter of January 29, cosigned by Senator Robert T. Stafford, asking that we submit written testimony in connection with your Committee's report to the Committee on the Budget. Enclosed are our responses to the questions posed in your letter. Please contact me if I can be of further assistance.

An identical letter is being sent to Senator Stafford.

Sincerely yours,

Ray Barnhart

R. A. Barnhart
Federal Highway Administrato

Enclosures

Question No. 1 - Please contrast the FY 1988 request with the FY 1987 request and the appropriated level. What effect will proposed increases or reductions have on agency programs?

Answer - Detailed Comparison of FY 1987 and FY 1988 Budget Levels

Attachment B provides a comparison by account of the FY 1987 and FY 1988 budgets.

Comparison

The following table gives an overview of the FY 1988 total request and its comparison to the FY 1987 levels (million):

	FY 1987 Estimated	FY 1988 Estimated
Contract/Budget Authority	$13,574	$13,473
Obligations	12,029	13,496
Outlays	12,680	12,933

Effect of Proposed Increases/Reductions

Program Accounts

Both the FY 1987 and FY 1988 amounts presume enactment of the Administration's proposed "Essential Highway Reauthorization Amendments of 1987". For programs financed from the Highway account of the Highway Trust Fund, both the FHWA budget and legislative proposal assumes a "deficit neutral" position in which average revenues (excluding interest) are equal to the annual budget authority. The FY 1988 budget authority amounts are higher than the FY 1987 proposed levels because we assume added revenue due to repeal of gas tax exemptions. The slight reduction in total FHWA FY 1988 budget authority from FY 1987 is primarily the result of no new authority for special projects added by Congress in FY 1987.

The significant increase in FY 1988 obligations when compared to FY 1987 is the result of the uncertainty associated with the date of enactment of highway legislation. While the FY 1987 column of the FY 1988 budget proposal shows an estimate of $11.8 billion for the Federal-aid Highway program, it is stressed most emphatically that this is only an estimate and is not based on any empirical or survey data. The content and date of enactment of legislation as well as the states ability to obligate funds will determine FY 1987 obligations.

The 1988 budget proposal for Federal-Aid Highways budget authority, obligations, and obligation limitation presumes repeal of existing tax exemptions for gasohol, public and private buses, and State and local government vehicles. Without repeal of the tax exemptions, the proposed Federal-Aid Highways 1988 budget authority, obligations, and obligation limitation would be reduced by $612 million.

Administrative Accounts

The FY 1988 request for Limitation on General Operating Expenses is $220.140 million compared to $205.982 million in FY 1987 once increases for FY 1987 supplementals for Pay Act and FERS (Federal Employee's Retirement System) are considered. Of the total increase of $14.158 million, $11.125 million result from adjustments to base and built in changes for increased personnel costs for merit pay, increased SLUC contribution, general inflation, and annualization of the recent Federal employee pay raise and FERS contribution. Program changes amount to $3.033 million and are consistent with the legislative program and on-going organizational goals. Separate funding for Highway Safety, Research and Development is being eliminated and proposed for incorporation within the Limitation. There would be no reduction in either safety research or the total highway research effort. Also, as part of an overall effort to shift Federal activities to the private sector, DOT is reviewing to determine appropriateness of contracting operations of a non-Federal entity as is the case with other Federal research operations.

The request for the administration of on-going motor carrier safety is $24.744 million. This represents an increase of $4.421 million over the FY 1987 amount available once the FY 1987 increase for pay act and FERS are considered. The request provides for the first full year of operation with the entire complement of 150 newly hired safety specialists. In addition to the increase for staffing, increases for contract research, program travel, computer contract support, equipment for the new employees and general inflation are also included in the budget.

Att B

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF REQUIREMENTS

(Dollars in thousands)

	F.Y.1986 Actual	F.Y.1987 Enacted	F.Y.1988 Estimated
LIMITATION ON GENERAL OPERATING EXPENSES			
Limitation	(194,999)	(202,750)	(220,140)
Pay Act Supplemental		(1,200)	
Retirement Supplemental		(1,[illegible]3)	
Positions	2,629	2,621	2,492
Full-time equivalents	2,650	2,674	2,542
MOTOR CARRIER SAFETY(GENERAL FUNDS)			
Budget Authority (Appropriation)	10,302	19,515	
Obligations	10,042	20,039	
Outlays	12,595	20,020	2,032
Positions	370	433	
Full-time equivalents	260	421	
MOTOR CARRIER SAFETY(TRUST FUNDS)			
Budget Authority (Appropriation)			24,744
Obligations			24,744
Outlays			21,707
Positions			433
Full-time equivalents			425
HIGHWAY SAFETY RESEARCH AND DEVELOPMENT			
Budget Authority (Appropriation)	8,134	7,000	
Obligations	7,625	8,342	
Outlays	8,123	7,046	7,806

Att B

	F.Y.1986 Actual	F.Y.1987 Enacted	F.Y.1988 Estimated
HIGHWAY-RELATED SAFETY GRANTS (LIQUIDATION OF CONTRACT AUTHORIZATION)			
Contract Authority	9,570	10,000	10,000
Obligation Limitation	(9,570)	(10,000)	(10,000)
Obligations	9,570	10,000	10,000
Outlays	10,004	9,290	10,670
Liquidating Cash	9,000	12,000	10,000
RAILROAD-HIGHWAY CROSSINGS DEMONSTRATION PROJECTS(Sec.163) (10 CITIES)			
Budget Authority (Appropriation)	5,104	8,917	
Obligations	5,610	7,018	7,014
Outlays	6,615	5,214	6,002
MISCELLANEOUS APPROPRIATIONS			
Budget Authority (Appropriation)		1,007	
Obligations	10,422	21,565	
Outlays	124,005	66,279	53,061
ACCESS HIGHWAYS TO...LAKES			
Budget Authority (Appropriation)	4,705	5,000	
Obligations	4,904	12,239	
Outlays	8,200	10,159	9,700
WASTE ISOLATION PILOT PROJECT ROADS			
Budget Authority (Appropriation)	6,699	10,000	
Obligations	9,470	11,490	
Outlays	15,506	9,062	8,976

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	F.Y.1986 Actual	F.Y.1987 Enacted	F.Y.1988 Estimated
FEDERAL-AID HIGHWAYS (LIQUIDATION OF CONTRACT AUTHORIZATION)			
Contract Authority	14,610,321	13,307,000	13,307,000
Obligation Limitation	(13,125,000)	(13,000,000)	(12,707,000)
Obligations	14,227,034	11,000,000	13,307,000
Outlays	13,951,264	12,491,000	12,726,000
Liquidating Cash	13,036,000	13,130,000	13,400,000
Positions	240	266	260
Full-time equivalents	268	300	311
RIGHT-OF-WAY REVOLVING FUND (LIQUIDATION OF CONTRACT AUTHORIZATION)			
Obligations	40,502		
Outlays	15,534		
Loan Limitation	(47,050)	(47,050)	(47,050)
TRUST FUND SHARE OF OTHER HIGHWAY PROG.			
Budget Authority (Appropriation)	10,200	7,030	
Obligations	11,219	16,226	15,315
Outlays	10,203	12,601	15,300

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	F.Y.1986 Actual	F.Y.1987 Enacted	F.Y.1988 Estimated
MOTOR CARRIER SAFETY GRANTS			
Budget Authority/Appropriation	16,269	16,280	
Budget Authority/Contract Authorization		50,000	50,000
Obligations	15,905	33,121	50,000
Outlays	13,399	26,742	46,078
Liquidating Cash(Supplemental in 1987)		35,000	50,000
MISCELLANEOUS TRUST FUNDS			
Budget Authority (Appropriation)	6,036	4,982	1,856
Obligations	7,652	6,215	1,856
Outlays	6,707	6,110	2,867
Liquidating Cash	247	603	
Positions	15	15	15
Full-time equivalents	13	16	16
BALTIMORE-WASHINGTON PARKWAY			
Budget Authority (Appropriation)	2,071	8,000	
Obligations	2,071	8,000	
Outlays	(4)	1,010	2,724
MISCELLANEOUS HIGHWAY TRUST FUNDS			
Budget Authority (Appropriation)		36,000	
Obligations	1,119	30,360	
Outlays	1,653	10,076	14,650
EXPRESSWAY GAP CLOSING DEMONSTRATION			
Budget Authority (Appropriation)	8,613	6,206	
Obligations		14,813	
Outlays		2,963	4,748

Att B

	F.Y.1986 Actual	F.Y.1987 Enacted	F.Y.1988 Estimated
GRAND TOTAL-FHWA			
Contract Authority/Budget Authority	14,702,712	13,574,403	13,473,100
Obligations	14,379,034	12,620,439	13,406,429
Outlays	14,104,960	12,888,394	12,933,221
Liquidating Cash	13,045,247	13,177,605	13,460,000
Positions:			
Direct	3,265	3,335	3,208
Financed from transfer and reimbursable accounts	193	169	148
Total Positions	3,458	3,504	3,356
Full-time Equivalents			
Direct	3,199	3,419	3,304
Financed from transfer and reimbursable accounts	239	201	178
Total,Subject to Ceiling	3,438	3,620	3,482
Not subject to Ceiling	65	80	83
Total Full-time Equivalents	3,503	3,700	3,565

Question No. 2 - What personnel increases or decreases are being proposed in FY 1988 compared with FY 1987 levels?

Answer - The following brief table displays a cross-walk from FY 1987 full-time equivalents to FY 1988 Budget Request:

FY 1987 Enacted	3,620
Reduction for Privatization of Turner-Fairbank Center	-132
Annualization of Motor Carrier Safety Specialists	+14
Elimination of the Appalachian Highway Program	-20
FY 1988 Budget Request	3,482

Question No. 3 - Please discuss any proposed rescission, deferrals or supplementals proposed for FY 1987.

Answer - The FHWA proposes no rescissions or deferrals for FY 1987. The Budget does propose pay act, FERS (Federal Employee's Retirement System) and a liquidating cash supplemental with details as follow:

Pay Act Supplemental

An increase in the Limitation on General Operating Expenses of $1.299 million is included as an FY 1987 supplemental to provide for the Federal employee pay increase which became effective in January 1987. An increase of $147 thousand for Motor Carrier Safety, to be derived by transfer from Federal-aid Highways, is also included as an FY 1987 supplemental to provide for the Federal employee pay raise which became effective in January 1987.

Federal Employee's Retirement System Supplemental

An increase in the Limitation on General Operating Expenses of $1.933 million is included as an FY 1987 supplemental to provide for the FHWA contribution required under the new FERS program, established by P.L. 99-335. An increase of $661 thousand for Motor Carrier Safety, to be derived by transfer from Federal-aid Highways is also included as an FY 1987 supplemental to provide for the FHWA contribution required under the new program, established by P.L. 99-335.

Liquidating Cash Supplemental for Motor Carrier Safety Assistance Program

The budget includes an FY 1987 supplemental appropriation request of $35.0 million, of which $16.269 million would be derived from budget authority provided in the FY 1987 Appropriations Act for the Motor Carrier Safety Assistance program, to pay bills associated with the "Commercial Motor Vehicle Safety Act of 1986", PL. 99-570. That Act provided $50 million in FY 1987 contract authority but no liquidating cash.

Q&A-#4
02/05/87

QUESTION 4: Please indicate if any legislative initiatives are necessary, or are being considered, to implement any part of the agency's fiscal year (FY) 1988 budget request. If so, please describe these provisions and specify the budget impact of each provision.

ANSWER: Since there are no authorizations for the highway program beyond FY 1986 except for the Interstate System, authorizing legislation is necessary to implement essentially all of our FY 1988 budget request. The necessary authorizing legislation was initially submitted to the President of the Senate, and Speaker of the House on February 5, 1986, by the Secretary. Since the 99th Congress did not enact the necessary authorizing legislation, a revised legislative proposal was submitted to the President of the Senate and the Speaker of the House on January 5, 1987, by the Secretary. The major provisions of the revised bill are described in the attached summary. Total authorizations for all programs included in the bill are set to be deficit neutral, that is, total authorizations equal anticipated revenues to the Highway Trust Fund excluding interest.

LEG/SPEC-#61A
01/05/87

Major Provisions of Federal Highway Administration (FHWA) Fiscal Year's (FY) 1987-1990 Highway Reauthorization Proposal

FEDERAL HIGHWAY TAXES

We are proposing to extend the Highway Trust Fund (HTF) and its user fees for 4 years. All major exemptions to the user taxes are proposed for elimination effective October 1, 1987. The proposal to eliminate the exemptions is consistent with the basic principle underlying the HTF; that those who give rise to the need for highway improvements should pay for them. The exemptions being eliminated include exemptions for gasohol, buses, taxis, and State and local governments. These exemptions are estimated to cost the Trust Fund about $800 million in FY 1988.

AUTHORIZATION LEVELS (See Attached Table 1.)

The Federal-aid highway and related programs are proposed to be authorized for 4 years. at an average level of about $13.4 billion from the Highway Account (HA) of the HTF for FY's 1987-1990. The program levels are predicated on the estimated tax receipts to the HTF and, thus, are "deficit neutral." The authorization for the Interstate 4R(I-4R) primary component of the Interstate-Primary program (see below) will be increased for any year if the estimated tax receipts for that year are revised upward. The I4R/primary component, the Bridge Replacement and Rehabilitation program, and the Highway Block Grant will be decreased for any year if the estimated tax receipts for that year are revised downward. The reduction will be in proportion to the authorization for each category.

RESTRUCTURED INTERSTATE AND PRIMARY PROGRAMS

The Interstate construction, Interstate-4R (I-4R), and primary programs will be combined. The combined annual authorization level will be almost $8.2 billion. The Interstate Construction portion is funded at $2.0 billion annually and will be distributed on the basis of cost-to-complete. The remaining authorized amount will be apportioned 55 percent on the basis of the current I-4R formula and 45 percent on the current primary formula, with no State receiving less than a one-half of 1 percent for either of the components.

The combined program level is designed to meet the estimated highway needs of the Interstate System and other mileage on the Federal-aid primary system. The funds are to be apportioned to meet these needs nationally. Since the relative needs between Interstate and the other primary highways will vary among the States, the States will have the capability to direct the funds where they are needed.

The Federal share for Interstate projects will be 90 percent; for projects on the primary system it will be 75 percent. Availability for all components will be 4 years.

Unobligated balances of previously apportioned or allocated Interstate construction funds can only be used for Interstate construction unless a State has no Interstate construction needs. If a State has no Interstate construction needs, these funds may be transferred to the Interstate/primary program. These funds will lapse on October 1, 1990. Any remaining Interstate construction discretionary funds on October 1, 1986, will be administered under current procedures. Unobligated balances of I-4R or primary funds can be used for either Interstate or primary projects. There will be no new discretionary funds for either Interstate construction or I-4R.

BRIDGE REPLACEMENT AND REHABILITATION

The existing and accruing bridge needs warrant continuation of a separate bridge replacement and rehabilitation program for the Federal-aid primary system (excluding Interstate System bridges). Interstate bridges are excluded because the combined Interstate/primary program will provide adequate funds to address bridge needs on the Interstate System. Funds for off-system bridges (including the current urban and secondary system bridges) will be included in the authorization for the highway block grant (HBG). The annual authorization level will be $1.25 billion for FYs 1987-1990. An annual authorization may be adjusted down if the revenue projection for the year of authorization is lowered.

The discretionary portion of the bridge program will be continued. This portion of the program provides additional funds for high cost bridges. The takedown from the Bridge Replacement and Rehabilitation authorization to finance discretionary bridges will be increased to $250 million. Eligibility is restricted to bridges on the Primary system costing more than $10 million or for bridges costing less than $10 million if the cost of a bridge is more than twice a State's annual apportionment.

For the apportioned part of the program, the funds will continue to be apportioned on the basis of cost estimates for bridges eligible for replacement or rehabilitation. The existing 10 percent maximum, and one-fourth percent minimum amounts for an individual State's share of the total annual apportionment will also be continued. The Federal share for the bridge program is reduced from the current 80 percent to 75 percent to be consistent with the Federal share for the primary system.

HIGHWAY BLOCK GRANT (HBG)

The Administration proposes a block grant from the HA of the HTF to be authorized in lieu of the present urban, secondary, and non-Federal-aid-primary bridge replacement and rehabilitation programs at a level of $2.2 billion annually for FY's 1987-1990.

Contract authority will be granted for this program, i.e., after authorization, an appropriation will not be necessary in order to distribute the grant to the States. The Federal-aid urban and secondary systems are eliminated.

The formula for distributing the funds will provide approximately the same relative share each State would have received under the existing categorical programs. Urban areas are guaranteed an amount based approximately on the attributable amount they formerly received under an urban system apportionment, i.e., that portion resulting from the population centers of 200,000 population or more. States will receive progress payments as needed to pay for costs incurred under the HBG. The HBG funds will be eligible for any highway improvements now eligible under Title 23 on main public roads not on the Interstate or primary systems, for bridge projects on any public road not on the Interstate or primary systems and for highway planning and research. The attributable funds for urbanized areas of 200,000 or more may also be used for mass transit capital projects. State or local match will be 25 percent and may consist of cash, real estate or in-kind services. Minimal requirements will be imposed. The Governor will certify annually that the funds to be received will be used for the above purposes, and that attributable funds will be made available to urbanized areas of 200,000 population or more for projects selected in accordance with applicable planning requirements. States must submit assurances of the following:

- State and localities must solicit public input on how funds are to be used.
- Consultation with local units of government on all projects.
- At least 25 percent of each projectis funded by the State/local contributions.
- Federal nondiscrimination, environmental, and uniform relocation assistance laws are adhered to. Approval of the State's assurances and periodic review will satisfy the Secretary's responsibilities under the National Environmental Protection Act.
- Laborers and mechanics employed on block grant projects must be paid in accordance with Davis-Bacon wage rate requirements.
- Establishment of necessary fiscal and accounting procedures. The Secretary and Comptroller General must be permitted access to fiscal records and to the construction sites.
- An independent audit of expenditures must be conducted annually.

If it is found that any of these requirements are not being met, distribution of future payments will be withheld until the State demonstrates that the problem has been corrected.

MINIMUM APPORTIONMENT

The minimum apportionment feature was provided for the first time in the 1982 Surface Transportation Assistance Act (STAA). Referred to as "minimum allocation" in that Act, it was a temporary provision which expired in FY 1986. Under our proposal, the feature is made permanent. In addition to including all apportioned funds, allocated funds (except those for Federal lands, safety grants and MCSAP) will be used in the calculation of the minimum apportionment. A cap will be placed on the amount to be made available each year at $500 million. Eligible States will receive a proportionate share of the $500 million.

STREAMLINING AND FLEXIBILITY

The FHWA proposal contains numerous provisions with the expressed goal of reducing unnecessary and burdensome restrictions and requirements. States will have the flexibility to respond to special circumstances, and the Federal Government will be able to more efficiently and effectively deliver Federal assistance. The provisions briefly described below are illustrative.

Construction Inspections: To allow final inspections on Federal-aid projects on an as-needed basis, rather than on every project, the statutory language of Title 23 is revised to permit the Secretary to establish procedures for the inspection of such projects. State and local governments perform their own final inspections. Federal final inspections, in many instances, may be duplicative. Final inspections are time consuming and resource intensive when done on an every project basis. Inspections during the course of construction are usually more revealing and can be sufficient.

Urban Planning: To eliminate the statutory requirement for a continuing, cooperative, and comprehensive (3C) planning process in smaller urbanized areas, the threshold for this requirement is raised to 200,000 or more population. State and local officials can decide the decision making structure necessary to act on a transportation program for their particular urbanized area. The States rather than metropolitan planning organizations will be the recipients of metropolitan planning funds for the smaller urbanized areas. The statutory requirement for local consultation in any urban area of 50,000 population or more is retained. Such a system will not change the planning requirements for the urbanized areas above 200,000 population; nor will it prohibit the preparation of a transportation plan, the conduct of a 3C planning process, or the use of Federal planning funds for these activities in areas under 200,000 population as long as the Governor and local elected officials agree.

Federal Matching Requirements: The statutory language is amended to permit States to request a Federal matching share less than the maximum amount specified for any particular category, and permit adjustment in the matching ratio not to exceed the maximum specified rate. This will permit underfinancing presently permissible only under a limited number of circumstances.

Interstate Substitute Program: Separate authorizations for highway and transit substitute projects will be discontinued. In allocating the discretionary funds, priority will be given to withdrawal areas with "ready-to-go" projects that will complete their Interstate substitute programs. The requirement for an approved Interstate substitute concept program originated with the September 30, 1983, deadline on withdrawals. Substitute projects had only to be approved "in concept" prior to that date to qualify for the "trade-in." No mechanism exists for changes to those concept programs, many of which are either insufficient, or out of date. The proposal amends Title 23 to repeal the requirement. It is to the State's advantage to expedite use of these funds since the 1982 STAA "froze" withdrawal values. The ability to change the concept program without FHWA involvement at this stage will avoid an administrative burden. The FHWA retains project approval prior to obligation.

Payback Requirements: Whereas payback forgiveness provisions of highway law presently allow reuse of highway rights-of-way for public use without credit to the Highway Trust Fund, this provision will require payback for excess property unless the property will be applied to a transportation project. The current situation has and will continue to result in the diversion of substantial amounts of highway funds to nontransportation purposes. A 1982 survey of projects indicated that in excess of 3,700 acres of acquired right-of-way remain available for reuse. The potential exists for the possibility to recover $0.5 billion if the requirements of 23 U.S.C. 103 were revised.

SELECTED ADDITIONAL PROVISIONS

Certification Acceptance (CA): The CA provision is being revised to permit its use on any nonblock grant project (including Interstate) costing less than $1 million. It will not be applicable for any projects costing $1 million or more.

National Highway Institute (NHI) Training: 23 U.S.C. 321 currently allows States to use up to one-half percent of their primary, secondary, and urban system funds to pay for up to 75 percent of the cost of tuition and direct educational expenses for educating and training State and local highway department employees including training from other Federal agencies. This provision is revised to allow a State to use up to one-quarter percent of its Interstate/primary program funds for education and training including the cost for NHI-sponsored courses. The FHWA also is required to provide training at no cost for those subject areas deemed a Federal responsibility. The current procedure of charging non-Federal personnel trained by NHI has required the imposition of new, inefficient financial procedures. Also, it does not take into account the benefits accruing to the Federal-aid highway program because of better trained State and local personnel.

Highway Planning and Research Takedown: 23 U.S.C. 307 currently provides for a 1 1/2 percent takedown from the Interstate, Interstate 4R, primary, secondary and urban system and bridge replacement programs that must be used for highway planning and research activities. Section 307 is amended to require States to use not less than 1 1/2 percent of their apportioned Interstate/primary and bridge replacement and rehabilitation funds for planning and research. Planning and research is also an eligible activity for Interstate substitute and HBG funds.

Strategic Highway Research Program (SHRP): Research has received too little emphasis recently, and fewer innovative ideas have been made available to improve the efficiency and effectiveness of the highway program. The SHRP was developed cooperatively by the American Association of State Highway and Transportation Officials (AASHTO), and FHWA to address several critical research needs. The six items to be addressed under the program are: (1) asphalt, (2) maintenance cost effectiveness, (3) bridge deck protection, (4) cement and concrete, (5) chemical control of snow and ice, and (6) long-term pavement performance. A 5-year program with an estimated cost of approximately $30 million has been outlined, and AASHTO has already appointed a director to initiate work on development of the program. A one-fourth percent takedown for 5 years from the funds authorized for the Interstate/primary, bridge replacement and rehabilitation, Interstate substitute, railway-highway, hazard elimination, and the HBG will provide the necessary funds for SHRP. This takedown will be done in the same way the takedown is done for the metropolitan planning program. The funds would be earmarked for SHRP.

Emergency Relief (ER): Currently, no match is required for ER funds. In order to manage the program more effectively and make the Federal share consistent with the share for the other programs of major Federal interest, the Federal share for ER projects is revised to make it the same as the Federal share for regular Federal-aid projects on the system on which the ER project is located; e.g., 90 percent for Interstate and 75 percent for primary. However, the Federal share for emergency repairs during the first 30 days may be 100 percent.

Currently, the territories are not eligible for ER funds. However, since they receive Federal-aid funds, we have expanded the eligibility to include territories. There is a $5 million/year cap on ER funds for territories.

Currently, facilities on the secondary and urban system are eligible for ER funds. Since these systems will be eliminated under the HBG only facilities on the Interstate and primary systems will be eligible for ER funds.

December 31, 1986

HIGHWAY PROGRAM AUTHORIZATIONS
Highway Account of Highway Trust Fund
(millions of dollars)

	1987 Administration /1 FY 87-90
I C/I 4-R/Primary	8,160
Interstate Construction	(2,000)
Interstate 4R/Primary	(6,160)
Primary Minimum	50
Interstate Substitutes Highway & Transit	500
Minimum Allocation	500
Block Grant	2,200
Bridge	1,250
Federal Lands	250
Hazard Elimination	175
Railway-Highway Crossing	190
Emergency Relief	100
Territorial Highways	12
Subtotal	13,387
Safety Grants (402)	10
Safety (R&D)(403)	--
NHTSA 402 & 403	144
MCSAP	55 /2
MCS Administration	18 /3
Misc. Authorizations	25 /4
TOTAL HIGHWAY ACCOUNT	13,639

/1 Based on end of year (Dec 86) revenue projections adjusted to reflect point of collection provision, and repeal of exemptions for gasohol, buses, and State and local governments; authorizations for FY 87-90 based on average of tax receipts in FY 87-90.

/2 Average of authorizations provided in Commercial Motor Vehicle Safety Act of 1986.

/3 Four year average of authorizations in FY 88-90 (appropriated from General Fund in FY 87).

/4 Authorizations provided in FY 87 averaged over 4 years.